

**Environmental Management Site-Specific Advisory Board Chairs' Meeting**  
**Meeting Summary**  
**September 16-17, 2008**  
**Arlington, Virginia**

The Environmental Management (EM) Site-Specific Advisory Board (SSAB) met on September 16-17, 2008, at the Key Bridge Marriott in Arlington, Virginia. The Department of Energy (DOE) Headquarters (HQ) hosted the meeting. Participants included EM SSAB members and officers, DOE HQ and field staff, and EM SSAB federal coordinators, administrators, and support staff. The meeting was facilitated by Mr. Gary Gomez.

**Participants:**

- Hanford Advisory Board: Susan Leckband, Chair; Shelley Cimon, Member; Kim Ballinger, Federal Support Staff; Lori Gamache, Federal Support Staff
- Idaho National Laboratory Site EM Citizens Advisory Board: R.D. Maynard, Chair; John Bolliger, Vice Chair; Willie Preacher, Member; Tami Sherwood, Member; Bruce Wendle; Bob Pence, Federal Coordinator; Lisa Aldrich, Contractor Support Staff
- Nevada Test Site Community Advisory Board: David Hermann, Chair; Walt Wegst, Vice-Chair; Rosemary Rehfeldt, Contractor Support Staff
- Northern New Mexico Citizens Advisory Board: J.D. Campbell, Chair; Ralph Phelps, Vice Chair; Pam Henline, Member; Jeff Casalina, DDFO; Christina Houston, DDFO; Lorelei Novak, Contractor Support Staff; Menice Santistevan, Contractor Support Staff; Ed Moreno, Facilitator
- Oak Ridge Site-Specific Advisory Board: Steve Dixon, Chair; Ted Lundy, Vice Chair; Darryl Bonner, Member; David Adler, DDFO; Pete Osborne, Contractor Support Staff
- Paducah Gaseous Diffusion Plant EM SSAB: Bobby Ann Lee, Chair; Judith Clayton, Member; Rob Seifert, Federal Coordinator; Eric Roberts, Contractor Support Staff
- Portsmouth Gaseous Diffusion Plant EM SSAB: Val Francis, Co-Chair; Richard Snyder, Co-Chair; David Kozlowski, DDFO
- Savannah River Site's Citizen's Advisory Board: Donna Antonucci, Chair; Ranowul Jzar, Vice-Chair; Arthur Domby, Member; Judith Greene-McLeod, Member; Gerri Flemming, Federal Coordinator; Mindy Mets, Contractor Support Staff
- DOE Headquarters:  
James A. Rispoli, Assistant Secretary for Environmental Management  
Vince Adams, Director, Office of Groundwater and Soil Remediation  
Cate Alexander Brennan, Office of Public and Intergovernmental Accountability  
Jeffrey Bobeck, Director, Office of Communications and External Affairs

Gary DeLeon, Director, Office of Nuclear Materials Disposition  
James Fiore, Director, Office of Management Analysis  
Douglas Frost, EM SSAB DFO, Office of Public and Intergovernmental Accountability  
Christine Gelles, Director, Office of Disposal Operations  
Mark Gilbertson, Deputy Assistant Secretary for Engineering and Technology  
Michelle Hudson, Office of Public and Intergovernmental Accountability  
Steve Krahn, Director, Office of Waste Processing

Melissa Nielson, Director, Office of Public and Intergovernmental Accountability  
Brandt Petrasek, Tribal Coordinator, Office of Public and Intergovernmental Accountability  
Paul Strider, Office of Strategic Planning and Analysis

- Other: Gary Gomez, DOE Facilitator; Martin Schneider, Editor-in-Chief, Weapons Complex Monitor; Bill Murphy, e-Management; Elizabeth Schmitt, e-Management; G. Brian Estes, Environmental Management Advisory Board; Jon Carter, CH2M Hill; Mike Nurfker, Weapons Complex Monitor; Sean Todd, FPR; Don Fraser, AMEC; Frank Hahne, NFS-TN

## **Welcome and Opening Remarks**

Ms. Melissa Nielson welcomed the Chairs to Washington and introduced members of her staff. She also acknowledged Mr. G. Brian Estes, a member of the Environmental Management Advisory Board, who attended the meeting. She then introduced Mr. Douglas Frost, the Designated Federal Officer (DFO) for the EM SSAB.

Mr. Frost stated that this would be his final EM SSAB Chairs Meeting, as he would be retiring shortly. He then introduced the panel on Engineering and Technology.

## **Engineering and Technology Panel and Roundtable Discussion – Mark Gilbertson, Deputy Assistant Secretary for Engineering and Technology; Steve Krahn, Director, Office of Waste Processing; Vince Adams, Director, Office of Groundwater and Soil Remediation; Yvette Collazo, Director, Office of D&D and Facility Engineering**

### Technology Development and Deployment

Mr. Gilbertson, Deputy Assistant Secretary (DAS) for Engineering and Technology (EM-20), provided an overview of engineering and technology activities within the EM program, beginning with the program's goals of reducing risk, increasing efficiency, increasing compliance with requirements, and improving management through Best-in-Class initiatives.

Mr. Gilbertson encouraged the EM SSAB to raise issues and concerns so that his team could seek solutions. He cited the clarity of the groundwater plume maps as an area where the EM SSAB could provide input. In addition, he asked for input on the value of using Web-based technologies to facilitate communication between the EM SSAB and EM's technical experts.

Mr. Gilbertson then discussed his office's organization and noted that there may be a shift in the future toward an increased emphasis on engineering, as opposed to technology. Day-to-day technical challenges are important; however, EM-20 must also plan for the future. As a result, EM-20 has engaged in an integral partnership with EM's Office of Strategic Planning in order to address the possibilities for the future. This is a logical extension of the Technology Roadmap that was issued in March, which previewed the types of issues that will likely face the program in the long run.

Mr. Gilbertson described his office as the "technical conscience" for the EM Program, responsible for ensuring that EM is a leader with regard to energy issues and managing the infrastructure that the taxpayers support to tackle these issues. EM-20 brings in the best experts

in the world to look at ongoing activities. In addition, his office uses technology readiness assessments to move forward on initiatives and enhance the maturity of the systems and the technologies that EM is using to tackle problems.

Currently, there is increased emphasis on reconnecting EM with the national laboratory system, a valuable resource for the future. EM has sought external advice from the National Academy of Sciences (NAS) on how to leverage the national labs and the capabilities, people, and infrastructure associated with them to better manage the program's work in the future. Mr. Gilbertson added that he is also working to build ties with EM's federal project directors (FPDs) to make them aware of available technical resources.

EM-20 will also look toward other programs, such as the National Nuclear Security Administration (NNSA) and the Department of Defense (DoD), to determine if there are opportunities to leverage investments and share information. Mr. Gilbertson's office continues to establish working relationships with other countries (such as France and the United Kingdom) that are moving toward the forefront of the global nuclear industry, as well as with organizations such as the Nuclear Regulatory Commission (NRC) and the National Institute of Standards and Technology; there is an active exchange of technical and performance information. His office has chartered a new NAS study for Fiscal Year (FY) 2009 that will focus on waste-form performance and incorporating waste-form end states into the design process.

As DOE and the nation transition into a new administration, EM has the potential to have a greater impact. There is a contractor pool of talented people that is a key component in the future direction of the nuclear infrastructure in this country. Furthermore, EM's partnerships with the national laboratories – in terms of their security, locations, and resources – provide a unique opportunity for the program to play a role in missions beyond that of environmental cleanup. EM's stewardship of the complex's facilities and infrastructure, combined with its technical capabilities, will become increasingly important to the Department in the future.

Mr. Gilbertson then highlighted some of his office's Best in Class for Engineering and Technology activities, including the establishment of a Quality Assurance Corporate Board.

### Discussion

Ms. Donna Antonucci thanked Mr. Gilbertson for the newsletters that are posted on the Web and asked if there was a way to notify the EM SSAB members when new material is posted.

Mr. Gilbertson agreed that EM needs to improve in its public notification and suggested that the Chairs raise this issue with Mr. Jeffrey Bobeck, Director of the Office of Communications and External Affairs. He also asked the Chairs to share their experiences and lessons learned as to which methods of communication have been most effective at their sites; this kind of feedback is essential.

Mr. Ted Lundy asked about efforts to capture the knowledge of those within EM who are retiring, including Mr. Frost.

Mr. Gilbertson agreed that maintaining institutional knowledge is important and noted that EM is exploring ways to orient and educate the new and existing workforce. For example, EM-20 would like to post on the Internet presentations, workshops, and educational programs – such as Vanderbilt University’s Nuclear Separations Chemistry course so that they are available to the workforce and public.

Mr. J. D. Campbell asked for guidance regarding how the local boards should interact with EM-HQ without creating conflict between the other management organizations at their sites.

Mr. Gilbertson responded that he believes EM is on the right path. EM-HQ encourages direct input from the boards on site-specific issues. The program’s relationship with other Departmental elements and landlords, such as NNSA, continues to improve.

Ms. Shelley Cimon noted that at Hanford there is funding directed toward basic science which seems disconnected from the site’s overall decision-making matrix. It is critical that investments in basic science are coupled with technology and science needs and decisions.

Mr. Gilbertson noted that his managers are working to improve communication with the Office of Science (SC) regarding needed research. EM-20 is discussing long-term issues and research needs in basic science with SC.

Further information on EM-20 can be found at <http://www.em.doe.gov/Pages/EngTech.aspx>.

#### Reducing Technical Risks and Uncertainties in EM Projects

Mr. Gilbertson introduced Dr. Steve Krahn, Director of the Office of Waste Processing (EM-21).

Dr. Krahn noted that EM-21 uses the Engineering and Technology Roadmap as its major strategic document. His office is working with Los Alamos National Laboratory (LANL) to make use of its expertise in plutonium and uranium in EM’s waste processing challenges.

The Waste Processing Multi-Year Program Plan for FY 2008-2012, available on EM-21’s website at <http://www.em.doe.gov/>, is the tool used to help prioritize technology demonstration work, and to determine risks, technology gaps, and possible solutions at EM’s sites. Not all technology gaps require a research and development (R&D) fix, he noted. Some require other tools such as external technical reviews while others might become the topic of complex-wide technical exchanges or workshops, which are extremely valuable. For example, the workshop on cementitious waste in December 2006 at Savannah River National Laboratory resulted in a memorandum of understanding between DOE, NRC, and NIST to perform basic work on modeling how cementitious waste forms react with their environment in the long-term.

The community of practice is vibrant and is working within the Waste Processing Engineering Group. There are monthly calls among the technical experts in the waste processing arena, as well as regular technical exchanges between EM’s major waste processing field offices. The schedule and proceedings from these technology exchanges are also available on EM-21’s website. Dr. Krahn noted also a series of common-issue workshops, which are of relevance to a

more narrow section of the technical community; workshop topics include filter testing, ion exchange research, and pulse jet mixers.

Over the last year, EM-21 has attempted to systematize and standardize its interactions with the field through external technical reviews and technology readiness assessments. EM-20 has assembled a database of 130 experts that have been used on external technical reviews over the last three to four years.

An important feature of both the external technical reviews and the technology readiness assessments is that they are independent. These assessments and reviews also result in products, such as input into risk management plans. In addition, the external technical reviews and the technology readiness assessments are documented in guides, which are posted on the EM-20 website.

Technology readiness assessments are an important new part of EM's interface with major projects. The focus of these reviews is on the early evaluation of technologies that are to be implemented. This is a best practice that was brought to EM from NASA and was made a requirement for DoD in 2002. EM has received positive feedback from the FPDs that have participated in the assessments. EM has conducted nine technology readiness assessments to date.

At the policy level, EM has also started a major new initiative, the High-Level Waste (HLW) Corporate Board, which brings together some of the major technical leaders of the waste processing community on a regular basis to discuss cross-cutting issues and identify the need for new standards and policies. The HLW Corporate Board meetings are open to the public.

### Discussion

Ms. Susan Leckband asked if there were incentives for contractors to look at new technology. She also asked how an organization with a promising technology gets that technology implemented.

Dr. Krahn responded that he provides members to technical evaluation boards for contracts, such as for the HLW contracts at Savannah River Site (SRS). With regard to incorporating new ideas into the process, he explained that EM-20 engages in an annual evaluation for technology demonstration projects. All projects are evaluated through the same process in order to prioritize potential projects for the next Fiscal Year.

Ms. Leckband asked if the process of identifying site needs, which was used for the Technology Roadmap, is an ongoing process and commented that there does not seem to be any movement at Hanford concerning the issue of packaging.

Dr. Krahn noted that two of the new strategic initiatives pertaining to spent nuclear fuel and challenging materials were added as part of the review process for the Technology Roadmap. Currently, there are "placeholders" in the Roadmap for packaging-related technology.

Mr. Richard Snyder asked if EM SSAB members were invited to the various technical workshops.

Dr. Krahn responded that board members are not specifically invited, but results of the major workshops are posted on the EM-21 website.

Mr. Walt Wegst asked for a detailed definition of a corporate board. He also asked if there have been discussions with the French regarding HLW disposal.

Dr. Krahn responded that there have not been discussions with the French, but EM is working to develop such a relationship. However, EM does have a technical relationship with Areva and continues to explore glass-making technologies.

The intent of the corporate boards is, first and foremost, to act as communications devices. In addition, the corporate boards determine if additional policy is required. In particular, the HLW Corporate Board is tasked to develop a new and revised description of DOE's HLW strategy. Corporate Boards address policy-level issues, exchange technical information at a high level of interest to all concerned, and then allow people to raise issues to be addressed.

Mr. Wegst asked if there was an advisory role for the corporate boards.

Dr. Krahn responded that the corporate boards provide advice to EM's top leadership, both as requested and as the information that is evaluated develops the need for guidance.

Mr. Campbell noted that a recommendation may be coming from the Northern New Mexico Citizens Advisory Board (NNM CAB) concerning closure activities of LANL's Material Disposal Area (MDA) G. The closure study, like the feasibility study, has recently been submitted for MDA-G and there is a question concerning closure in place and the long-term stewardship obligations such a decision will entail. Mr. Campbell asked if a technology readiness assessment had been made, or external peer review performed for leaving materials in place for a long period of time, and would such a study be applicable to the NNM CAB.

Dr. Krahn asked Dr. Vince Adams, whose office leads such reviews, to respond.

Dr. Adams noted that requests for external technical reviews can come from many sources, including community members. However, Dr. Adams was unaware of a specific review on this subject.

Ms. Antonucci asked if there was any formal way of passing on lessons learned from an old site contractor to a new one.

Dr. Krahn responded that EM has been briefed on a couple of occasions by the new contractors. In fact, the new Management and Operating (M&O) contractor for SRS has visited EM-HQ on a couple of occasions. There have been some very frank discussions on important transition issues for that contract regarding the technical and safety issues associated with HLW to ensure the contractor is well apprised of EM-HQ's expectations.

Ms. Antonucci asked about the issue of plutonium disposition at SRS; specifically, had there been external reviews or technology readiness assessments for the increased use of H-Canyon and the transfer of plutonium directly into the system at a higher order of magnitude than current efforts?

Dr. Krahn noted that there have been such reviews. When Undersecretary Albright approved Critical Decision (CD) 1A for the new plutonium disposition project, now called the Plutonium Preparation Project, he tasked Assistant Secretary Rispoli to perform an independent technical review of the assumptions included in that CD-1A package. This review is about halfway complete and the final report is due by October 30.

Ms. Cimon noted that at Hanford, she sat in on the evaluation by the expert panel of the latest treatability tests along the river, and one of those treatability tests was doomed to fail at the beginning because the wrong equipment was procured. Ms. Cimon believes that if there had been corporate oversight, the treatability test could have gone forward with success.

Dr. Krahn was unaware of this specific case, but affirmed that this is the type of failure that technology readiness assessments are put in place to avoid. Dr. Krahn then noted that there have been successes in the technology readiness assessment process and recounted a few examples at Hanford and Oak Ridge.

Dr. Krahn asked the Chairs to spend some time with the technology readiness assessment and technology maturation guide that is posted online. As stakeholders, EM SSAB members are part of EM's decision-making process. It is a valid question to ask decision makers going forward: has a technology readiness assessment of this approach been performed, or when is an assessment scheduled?

#### Solving Groundwater and Soil Remediation Problems

Dr. Vince Adams, Director of the Office of Groundwater and Soil Remediation (EM-22) noted that groundwater is a high-risk area. It is critical that EM apply the best science and the best scientists and engineers to these issues. Even then, scientists can only project and predict and have the right tools to make educated guesses as to what is going on below the ground.

EM's goal is to be Best in Class and maintain technical integrity in order to build trust. Furthermore, the program should provide technical oversight and engineering technology best practices and should apply state-of-the art safeguards to reduce project risk and uncertainty.

As the U.S. built the nuclear weapons complex, it created an unprecedented problem with unique contaminants. As a result, there is a need for unique, innovative solutions, and that is the challenge.

EM manages 60 sites and more than 200 contaminated groundwater plumes, with many successful remedies in place. The program is now moving into the next generation of tools that will allow it to cut costs and be more effective. However, in some cases, plume cleanup is

impractical at a reasonable cost. Where this is the case and natural attenuation is a reasonable option, the challenge is communicating this effectively to regulators and the public.

Advanced predictive modeling lies at the heart of the groundwater program, also known as the “eyes and ears” below the ground. Other key parts of EM-22’s approach include technology characterization, in-situ modeling, and long-term monitoring.

EM’s groundwater priorities are determined during annual program reviews that include EM-22 staff, staff from the national laboratories, and FPDs from the field, who assess progress, recommend changes, and propose new initiatives if the program needs to change direction. The reviews result in a list of new priorities for the future.

EM recently established a Center for Groundwater Excellence at the Savannah River National Lab. The center will help build EM’s technical credibility and Best in Class program. EM-22 is also collaborating with the Interstate Technology and Regulatory Council, which is made up of the 50 states and the District of Columbia, as well as the EM SSAB, regulators, stakeholders, etc.

EM-22 is also pursuing communications with stakeholders via factsheets, the groundwater database, the Groundwater Plume Map and Assessment, biennial program newsletters, a planned EM-22 portal, and technical documents written for the layperson. Dr. Adam’s office also supports external program reviews, project reviews, and technical forums, as well as educational courses.

Dr. Adams summarized some of the treatment technologies currently in use. He noted that there is a movement away from pump-and-treat and toward in-situ treatment. Other treatment technologies include electrical resistance heating, which may be particularly applicable to Paducah; a new technology that uses molasses to grow bacteria to treat technetium, which is relevant to SRS; and injecting polyphosphate in areas near the Columbia River. In fact, there are nine or 10 demonstration projects at Hanford right now.

Additional technologies include enzyme activity probes, GEO siphons, carbon tet, geophysical techniques for bulk characterization, and innovative ways to treat mercury.

Dr. Adams noted that his office is working to take lessons learned and best practices from each site to improve on some of the models for design, construction, and operation. EM-22 is putting together a “Consumer Reports” chart showing progress at landfills.

## Discussion

Mr. Wegst noted that at the Nevada Test Site (NTS), the biggest problem in terms of long-term environmental management is the underground tests that injected radionuclides in the water table. There is agreement that it is impractical or impossible to clean that up. The key concern now is developing good models and experimental data points to determine groundwater activity. There is also evidence that plutonium has migrated from the locations of the tests into some of the characterization/monitoring wells that have been drilled. The current theory is that the



plutonium has attached to colloids and moved in the groundwater. Mr. Wegst asked if EM-22 had been involved in this issue at NTS.

Dr. Adams stated that he has not been involved in this issue.

Ms. Leckband asked if the public could observe the Landfill and Disposal Facility Technical Forum on October 7-9, 2008.

Dr. Adams responded that the forum is technical in nature and would be podcast.

Ms. Cimon added that she was concerned about bulk characterization, because she believes this assumes leaving contamination in place as a solution. It is also very difficult to use two-dimensional maps to describe something going on three-dimensionally underground. She noted that the best success at Hanford has come from drilling. Finally, she expressed concerns about the effectiveness of available technologies to describe what is going on underground.

Dr. Adams noted that the program will not move away from what EM thinks is working or the state of the art until there is evidence of a better approach.

Ms. Antonucci asked for a definition of biosparaging.

Dr. Adams described it as using a bio-mechanism where typically, air (or oxygen) and nutrients (if needed) are injected and the degraded volatilized contaminants are extracted.

Ms. Antonucci asked if the project baseline summary (PBS) reference on the plume maps could link to the baseline summary so that people can look at PBS20 or PBS30 and be referred to a description of it. This would be helpful to the public.

Ms. Ranowul Jzar expressed concern about the bundling of the drilling projects. She wondered that if something was missed, would long-term surveillance be adequate?

Dr. Adams thought there may have been miscommunication on this issue. His office is not combining wells into a single well and is not reducing the number of wells that are being drilled. Rather than using numerous single wells, EM-22 is trying to develop next generation techniques or methods where a larger bulk volume below the ground could be better characterized than is currently possible through the use of samples from a very small cross-sectional area of a well bore to represent a large volume of subsurface material. The program is not there yet, but is looking at advanced technology involving geophysical methods. The program is not giving up on drilling wells or drilling as many wells as is necessary.

Mr. Gilbertson added that the intent is to understand what is going on between wells in a lot of cases. The information will be used to correlate data from the wells and the geophysics to try and understand what is going on between those wells and other areas. It is an approach used extensively in the oil fields and other places. EM is trying to use the best technology to provide more information on what is happening in the subsurface.

Mr. David Hermann asked about soil remediation at DoD/Air Force land near the Nevada Test Site. Dr. Adams promised to find out more information and get back with Mr. Hermann.

### Deactivation and Decommissioning (D&D) and Facility Engineering

Ms. Yvette Collazo, Director for the Office of D&D and Facility Engineering (EM-23), noted that her office's mission includes three areas: D&D, real property and asset management (also known as facility engineering), and the Energy Management Program as it relates to EM facilities. Her office is currently hiring staff in these areas in order to upgrade the engineering technical expertise base.

In order to address the main areas of characterization, D&D, and closure, EM is focusing on knowledge management that will help the program understand what has been done in the past. It is not always simple to capture what has been done in different administrations, or at different sites. Another focus is to determine the need for different solutions for different areas. Some solutions cannot be easily transferred from one site to another, and there may be a need for technology demonstrations to actually see if what was used in one facility can be applied elsewhere. Another focus is on technologies that are at the basic and applied science stage. There is a need to partner with other organizations, such as SC, to identify those technologies that actually need basic or applied research.

Based on these approaches, EM-23 is close to finalizing utilization of a prioritization system for EM's D&D program. This prioritization system uses software that accounts for multiple criteria, such as risk minimization, cost, and schedule. The system provides an automated way to collect information, and, from that, to create a list of priorities that will aid in the allocation of project funding.

Ms. Collazo noted that her office has initiated a D&D hotline at the Hanford ALARA center, where people can call with questions or problems associated with D&D. There is also a D&D website maintained by the Florida International University that provides information on best practices and lessons learned. Technical fact sheets that summarize technology demonstrations and studies have also been developed in particular areas.

EM-23 is working on the D&D Toolbox Project, which combines information from technology demonstrations, paper studies, and knowledge management activities. Two demonstrations of this effort will occur in either September or October 2008. The first will demonstrate fixatives and coating products that could minimize worker exposures to toxins. The other, at SRS, will demonstrate a robotic 3-D imaging system for the assessment of unsafe conditions at facilities prior to initiating D&D work.

Ms. Collazo then moved to the subject of real property asset management. The goal of this effort is to ensure the maintenance of EM's enduring facilities at a reasonable cost and to develop new tools and processes to minimize risk at these facilities. EM-23 uses the Facilities Information Management System (FIMS) for its real property inventory and to support the prioritization of properties requiring maintenance. There are also 10-year site plans, from 2009-2028, which document the management plans and performance and budget requirements that are actually

needed for the different facilities. EM-23 also uses the FIMS database and conducts annual inspections to verify the accuracy and consistency of the information that is inputted into the system.

Ms. Collazo then discussed EM-23's Energy Management Program. The Transformational Energy Action Management Initiative introduced by the Secretary of Energy in 2007 requires all DOE programs to meet certain energy goals.

In order to meet the first goal of increasing energy efficiency, EM has put in place energy savings performance contracts (ESPC) at several EM sites (e.g., SRS, Richland).

The second goal of increasing renewable energy is best evidenced by the Biomass Cogeneration Project at SRS. This facility uses fuel, such as wood chips and used tires, instead of coal.

The third goal is to improve sustainability and building standards. EM-23 is in the process of receiving executable plans from the sites in order to meet this goal.

EM is in the process of working with SRS to implement the Energy Parks Initiative (EPI) to facilitate the development, construction, and operation of industries that benefit the communities around SRS. Examples include developing large-scale facilities at the sites that use innovative technologies such as wind, solar, and biomass. The EPI will be proposed as an EM complex-wide initiative to the new administration.

### Discussion

Ms. Leckband asked about the real property asset management, noting that EM prioritized facilities based on when they are planned for demolition. What happens to the facilities that are being run to failure for D&D but experience funding shortfalls that prevent their closure?

Ms. Collazo responded that the program is structured so that the real property-funding assumptions apply to facilities that are planned for demolition after 2015.

Mr. Gilbertson added that it is a challenge for EM because some problems have run facilities into the ground. The challenge is to communicate accurately what the state of those facilities is and what needs to be done to put them in the right shape. Ms. Collazo's program is attempting to establish a baseline for this. On one hand, the facility needs to be safe to be able to perform D&D, but on the other hand, it does not make sense to invest in a new roof for a building that will be torn down next year.

Ms. Cimon noted that Hanford has an issue with the plugging of pipes and the situation with Tank SY-102 and a pump leakage.

Mr. Gilbertson reported that his office has established a group to test technologies to unplug pipelines. EM-20 also held a workshop on pipeline and pumping issues, including slurry transfer issues. He agreed with Ms. Cimon that there needed to be a "full court press" on these issues.

Ms. Antonucci asked about EM-23's involvement in the P Reactor decommissioning at SRS, which is awaiting a Record of Decision (ROD) for the P Area proposed plan. How P Reactor is decommissioned may set a precedent for the EM complex.

Ms. Collazo noted that this particular issue touches on in-situ decontamination (ISD), or entombment. EM-23 is currently developing guidance for ISD and expects this guidance to be released before the end of the year. Her office has also conducted external technical reviews and facility walk-throughs for some of the other facilities in the complex.

Information on EM-23 is available at  
<http://www.em.doe.gov/Pages/DeactivationDecommissioning.aspx>.

### **Communications and External Affairs Presentation and Roundtable Discussion – Jeffrey Bobeck, Director, Office of Communications and External Affairs**

Mr. Frost introduced Mr. Jeffrey Bobeck, Director of the Office of Communications and External Affairs (EM-5).

Mr. Bobeck began by explaining that EM-5 exists to promote public accountability and stakeholder outreach. EM's lifeblood is its connection to the communities in which it works and the advisory boards who help do this work; therefore, in order to better communicate, it was decided that EM needed to have a more fully functioning communications office. Mr. Bobeck also added that if one considers EM as a corporation, there is a need for a strong corporate communications function.

EM faces a number of communication challenges. First of all, the technical complexity of the material makes it difficult to explain. The goal is to translate this complex information so the public can understand it. Another challenge is the weapons complex culture of secrecy. EM was a program born in secrecy and that survived in secrecy for many years. It is now important for EM to be more open in order to serve the communities with which it works. A third challenge is that it is difficult for some people to realize the scope of the program and that while EM has come a long way, there is still a long way to go.

Mr. Bobeck stated that the media coverage about nuclear cleanup has been largely negative. There is a need for EM to get ahead of the curve and get its message out to the public, so that people understand what this program is trying to accomplish. That way when something comes along that is considered negative, it can be put into context.

In building EM-5, Mr. Bobeck employs the three P's: the right people with the right skills, procedures that are consistent and institutionalized throughout the organization, and communications that are integrated into EM's policy-making process. He emphasized that it is critical that communications be part of the policy discussion from the very beginning.

Mr. Bobeck noted that he reports directly to the Assistant Secretary and that he is a political appointee. He stressed that his office is a mix of political and career staff, which provides a much needed balance as well as continuity into the next administration and beyond.

Mr. Bobeck explained that his office does not fully follow the model of a corporate communications office in government. His office works with the DOE Offices of Congressional and Intergovernmental Affairs and Public Affairs, as well as EM's Office of Public and Intergovernmental Accountability and the Chief Operations Office. This ensures a strong public side to what EM does with communications. EM-5 works with everyone inside DOE to make sure that everyone is on the same page. EM-5 often acts as a coordinator.

The ultimate goal is to have one message. For example, every EM presentation uses the phrase "Safety, Performance, Cleanup, and Closure." There are efforts to turn the EM logo into a brand that eventually will become well known by the public. There is also work to be done in communicating with Congress, which needs to know more about the EM program.

Mr. Bobeck defined his own personal goal as institutionalizing current activities so his office becomes a turnkey operation.

Mr. Bobeck then described some of his office's near-term accomplishments, citing improved internal communications with the sites; new information materials about the program, such as the "EM Story" as well as plans to create brochures for each site; an update of "Closing the Circle on the Splitting of the Atom" that will be called "Progress and Pathways"; and progress in institutionalizing how EM talks to Congress.

A number of EM informational materials can be found at <http://www.em.doe.gov/Pages/publications.aspx>.

"The EM Story" can be found at [http://www.em.doe.gov/em\\_video\\_player/videoPlayer.aspx?PAGEID=MAIN](http://www.em.doe.gov/em_video_player/videoPlayer.aspx?PAGEID=MAIN).

### Discussion

Mr. Campbell asked how often Mr. Bobeck interacted with Congress.

Mr. Bobeck responded that it is much more frequently than once a year, either at Congress' request or at EM's. Communication is more frequent with the committees with jurisdiction over EM. However, there is a need to communicate more often with other committees, such as the House Nuclear Issues Caucus, which is generally supportive of nuclear power and has close to 100 members.

Ms. Antonucci asked if there were plans to streamline the EM Website (<http://www.em.doe.gov/Pages/EMHome.aspx>) to provide information accessible to the general public, such as executive summaries.

Mr. Bobeck noted that redesigning the EM Web site is not a simple matter. First, it must be consistent with DOE's. Second, while the EM Office of Communications provides some content, the Web site is the responsibility of EM-40, the Office of Human Capital and Business Services. While there is good information on EM's site, there needs to be more context and

more EM-101 type information. Mr. Bobeck added that recently, all of the baselines were posted. Internally, the EM portal is a very strong tool.

Ms. Leckband commented that the EM-101 information should be readily accessible on the Website. She also expressed concern that EM's communications must balance progress made with discussion of issues that still must be resolved.

Mr. Bobeck noted that the "EM Story" presents general information about the program and includes a video presentation. He also agreed that there is a need to balance progress with challenges.

Mr. R. D. Maynard asked if meetings with Congress included an educational component, as well as a budgetary component.

Mr. Bobeck responded that it depends on the purpose of the meeting and who the participants are. Some are very knowledgeable; many others would benefit from the EM-101 approach. In some cases, EM is requested to provide briefings to Congress, as with the House Nuclear Cleanup Caucus, which is chaired by Congressman Doc Hastings. This is something EM needs to build on.

Mr. Maynard asked about communication concerning lessons learned with the Office of Nuclear Energy (NE).

Mr. Bobeck responded that EM talks with NE frequently and may consider providing joint briefings to Congress in the future. EM is also working to ensure that its story is communicated throughout DOE-HQ.

Ms. Cimon asked about the value of the EM SSAB reviewing the Website and making recommendations. Mr. Bobeck agreed that such a review would be valuable.

Mr. Steve Dixon asked whether the benchmarks for measuring the effectiveness of the EM-5 program include the media as well as public involvement.

Mr. Bobeck said yes, there are many ways to benchmark and many ways to set a measurable goal, but that this has not yet happened in EM-5. For the media, methods include collecting and analyzing every article to determine positive or negative coverage, or analyzing media coverage by site. One way to benchmark with Congress is to look at the number of members who write in support of a program.

Ms. Leckband expressed concern that as EM-HQ staff assess communication via the number of hits on the Website, they may be missing the depth of frustration that the general public may have. She asked that EM look beyond the Beltway at local communities such as those represented on the EM SSAB.

Ms. Antonucci asked whether Mr. Bobeck believed his position should be career or remain political.

Mr. Bobeck responded that he believed EM-5 will be best served by a combination of career and political positions. He noted the importance of having a fresh perspective, which is often provided by political appointees. In addition, political appointees generally have better access to decision makers within the current administration. Finally, the dual role of policy advisor and communications director serves the program.

**Waste and Materials Disposition Panel and Roundtable Discussion – Christine Gelles, Director, Office of Disposal Operations, and Gary DeLeon, Director, Office of Nuclear Materials Disposition**

Mr. Frost introduced Mr. Gary DeLeon, Director of the Office of Nuclear Materials Disposition (EM-14), and Ms. Gelles, Director of the Office of Disposal Operations (EM-12).

Overview of the Office of Nuclear Materials Disposition

Mr. DeLeon summarized his office's mission as developing strategies to disposition EM's surplus nuclear materials and spent nuclear fuel. In doing so, EM-14 works closely with other DOE programs and stakeholders, including NE, NNSA, and the Office of Civilian Radioactive Waste Management (RW).

In August 2006, EM established the Enriched Uranium Disposition Project to disposition 21 metric tons of highly enriched uranium (HEU) and five metric tons of plutonium. This project will utilize the H-Canyon facility at SRS to disposition the 21 metric tons of HEU, including 13.5 metric tons of aluminum-clad spent nuclear fuel. The objective is to blend the aluminum-clad spent nuclear fuel into low-enriched uranium for use as commercial fuel, which will provide more than \$400 million in revenue to the U.S. Treasury.

The Department of Energy also has 59,000 metric tons of excess uranium. In March 2008, the Secretary of Energy issued a policy statement on management of this excess uranium inventory. This policy states that DOE will manage this inventory consistent with legal requirements, ensure that there is sufficient inventory to potentially meet future DOE needs for uranium, ensure that all transactions relating to disposition of this inventory are transparent, and support the nuclear industry in the disposition of this uranium.

From DOE's uranium inventories, EM has generated more than 700 metric tons of depleted uranium hexafluoride (DUF6), sometimes referred to as "tails," through decades of operation of its gaseous diffusion plants. EM believes that there may be an opportunity to either re-enrich or reuse some of that uranium rather than disposing it as waste. This decision will depend on the cost to re-enrich the material, the current price of uranium, and the resulting disposal cost of re-enrichment.

EM is pursuing a request for proposals at the Portsmouth Gaseous Diffusion Plant for a very small amount of depleted uranium in various forms and assays to determine industry interest in buying the uranium outright or reusing the uranium.

DOE has also declared more than 61.5 metric tons of plutonium to be surplus. EM is focusing on 12.8 metric tons of this amount known as non-pit plutonium. In September 2007, the Department issued an amended ROD to consolidate this non-pit plutonium at SRS. Concurrently, EM issued a report to Congress that describes the plan to disposition this surplus plutonium. The disposition strategy consists of using the SRS mixed oxide (MOX) fuel fabrication facility that currently is under construction, planned plutonium vitrification capability, and H-Canyon. Basically, the surplus plutonium would be dissolved in H-Canyon and sent through the waste tanks. Several key factors have prompted EM to reevaluate this three-pronged strategy. One is that improved characterization of the material that has enabled EM to verify the feasibility of converting approximately 7.8 metric tons – almost double the initial estimate – into MOX fuel, rather than having to vitrify the plutonium.

There is also a need for providing initial feed to the MOX facility, which will begin operation in 2016. EM has a project that would provide the initial feed for that facility until the pit disassembling conversion facility becomes operational, which is projected to be in the early 2020s. EM is also reevaluating its plutonium vitrification capability, which is projected to be more costly than previously estimated. Finally, EM has determined that the H-Canyon facility can disposition the rest of the material. In June 2008, EM proposed a revised preferred alternative strategy to disposition all the surplus non-pit plutonium through the MOX facility and H-Canyon. That two-pronged strategy is subject to completion.

EM is currently preparing a draft supplemental Environmental Impact Statement (EIS) to the Surplus Plutonium Disposition EIS. A ROD on the disposition strategy is expected in 2009. The benefit of this disposition strategy is that it would maximize the use of existing facilities: H-Canyon and the MOX facility already under construction. Both have well-demonstrated technologies and both offer lower cost and reduced technical risk. EM will be converting more plutonium into something that is usable and becomes an asset as opposed to a liability for the Department. This approach also meets DOE's nonproliferation objectives. Finally, this approach meets statutory requirements for dispositioning the plutonium and fulfills DOE's commitment to the State of South Carolina to have a pathway for plutonium that is being consolidated.

EM is working closely with other parts of DOE on the Nuclear Materials Disposition Consolidation and Coordination Committee (NMDCCC), which was chartered by the Secretary to develop plans on consolidating and/or dispositioning other nuclear materials. The implementation plans for surplus uranium-233, plutonium-238, and plutonium-239 were developed under the NMDCCC.

EM is also finalizing its strategic plan for disposition management of EM spent nuclear fuel and is expected to complete it by the end of the calendar year. The plan is to process aluminum-clad spent fuel through the H-Canyon facility and recover the uranium as part of the HEU that is down-blended for commercial use. All the spent-fuel, both at Hanford and Idaho, will be packaged and placed in standard canisters or in the multi-canister overpacks for eventual disposal at Yucca Mountain.



EM is also planning for spent-fuel exchange between INL and SRS, with a goal of consolidating all aluminum-clad fuel at Savannah River, so that it can be deposited in H-Canyon. EM will plan on sending the non-aluminum fuel to Idaho so that it can be packaged.

EM is also working on the ongoing NRC review of the license application that was submitted earlier this year. EM is also supporting NNSA on the continued receipt of foreign research-reactor fuel and domestic research-reactor fuel that it has received at both Savannah River and Idaho.

Ms. Christine Gelles added that DOE has stores of nuclear materials for which offices other than EM are responsible. “EM’s mantra is: if we have it, we are working to get rid of it.” It may require several steps of processing. It may ultimately be fed to a disposition facility that is operated by NNSA or be sold into the commercial sector for regeneration in the fuel cycle. Ultimately the nuclear material must have a disposal path that is well integrated into EM’s waste management plans.

### Discussion

Mr. Wegst asked whether excess uranium is all depleted uranium.

Mr. DeLeon noted that excess uranium exists in various forms. Some is HEU; some is natural uranium; some is depleted uranium. NNSA has the lead for the disposition of the majority of the excess uranium, and EM works closely with that agency.

Mr. Wegst asked if aluminum-clad reactor fuel was research reactor and submarine fuel.

Mr. DeLeon responded that aluminum-clad spent fuel includes some research fuel, as well as other fuel that was produced by the Department through its weapons production and research.

Ms. Gelles added that the Navy fuel is managed by the Naval Reactors Program and is not included in EM’s plans.

Ms. Leckband asked about the interim plans for storing plutonium that is being consolidated at SRS. When will facilities be open?

Mr. DeLeon noted that the planned opening for Yucca Mountain is 2017, but the date may change.

Ms. Gelles added that 2019 or 2020 may be a more accurate date, largely dependent upon the funding stream that will be available and the pace of the NRC's review.

Mr. DeLeon noted that EM’s current focus is on supporting RW. The schedule will be driven by the number of questions and issues to be worked out with the NRC and with the public on the license application.

The plutonium currently being consolidated at Savannah River is the non-pit plutonium. EM estimates that approximately 12.8 metric tons of non-pit plutonium that will be consolidated at

the SRS by September 2010, perhaps earlier. The current plan is to prepare as much of that plutonium as possible for disposition through the MOX facility, which will convert the plutonium into a usable fuel. A portion of the non-pit plutonium that contains too many impurities for the MOX process will be treated through H-Canyon, where it will be dissolved for vitrification at the Defense Waste Processing Facility (DWPF). It is expected that plutonium will be stored at SRS until Yucca Mountain opens. EM will maximize converting as much of the plutonium as possible into the MOX fuel for commercial use. The MOX facility should be operational by 2016.

When the MOX fuel becomes used or spent, it will be stored at the reactor sites, pending the availability of Yucca Mountain. The public should not see stores of plutonium in their current form at EM sites indefinitely. It will either be turned into HLW and vitrified, or it will be turned into MOX fuel and put into the commercial sector.

Ms. Antonucci noted that the proposed storage area is Savannah River's glass waste storage buildings. Ms. Gelles confirmed this, explaining that glass storage is the pathway after the material goes through the DWPF.

Mr. Richard Snyder asked if the Portsmouth RFP for depleted uranium is complete, and whether the RFP will be posted for public review. Mr. DeLeon responded that the RFP was issued publicly in August and the due date for the bids is October 6th.

Ms. Gelles noted that the solicitation is probably on the DOE procurement website. This system is used as a consolidated go-to for industry that is interested in bidding on DOE work. The procurement website can be found at <http://hqinc.doe.gov/support/SmallBusUtil.nsf/>.

#### Waste and Materials Disposition Update from the Office of Regulatory Compliance

Ms. Gelles provided a presentation on the Office of Regulatory Compliance. She noted that her presentation would cover the budget outlook because it is an important context for talking about the waste disposition projects, an overview on where the waste streams come from, and a more detailed discussion of each waste stream. In addition, Ms. Gelles promised an update on the Office of Compliance, which is currently headed by Karen Guevara, who is leaving EM-HQ for a position at SRS. Finally, Ms. Gelles indicated that she would discuss the Greater-than-Class C (GTCC) EIS and the Nickel Disposition Project.

#### Waste Streams

Ms. Gelles began by reviewing EM's waste streams. She discussed the cleanup of Uranium mill tailings waste and noted that surface cleanup of the vast majority of sites with tailings had been completed. Uranium ore was enriched at one of the three gaseous diffusion plants (Portsmouth, Paducah, or the Oak Ridge East Tennessee Technology Park). Depleted uranium is generated through those activities as well as large volumes of low-level waste (LLW).

Ms. Gelles explained that the fabrication of uranium fuel generates LLW, which occurred at Fernald and Idaho. Irradiating the fuel in the reactors for defense purposes occurred at Hanford and SRS and generated transuranic (TRU) and LLW. When fuel becomes used or is spent, it is stored, except in those cases where it was reprocessed, which occurred at Idaho, Savannah River,

and Hanford. Lastly, excess nuclear materials emerge when the weapons are dismantled. DOE looks to recover uranium and turn it back into fuel. A portion is recycled by tapping into the commercial industry and by using the SRS MOX facility.

Ms. Gelles noted that the FY 2009 budget request is consistent with EM's prioritization scheme to address safety and the highest risk activities at the sites. The largest percentage of the budget is associated with management of the liquid waste inventories in the tank farms at Hanford and Savannah River. Spent nuclear fuel makes up only 3.1 percent of the budget, but there are high costs associated with maintaining those inventories in a secure and stable manner. Solid waste disposition, which includes TRU waste projects and mixed low-level waste (MLLW) and LLW disposition projects, makes up 14 percent of the budget. Fifteen percent is taken up by security activities, such as management of excess nuclear material streams. The remainder of the FY 2009 budget is dedicated to traditional remediation activities – such as site closure, soil and groundwater cleanup, and facility D&D – that generate solid waste streams and result in excess nuclear materials that add to EM's inventories.

Ms. Gelles noted that the requirements outlined in EM's compliance agreements and its validated baselines currently exceed allocated resources. EM is engaged in negotiations with the Office of Management and Budget for staying on the FY 2008 target plan rather than having to re-baseline its projects to something lower; EM is not planning to re-baseline. There has been some movement in Congress to provide supplemental funding, specifically a \$62 million supplemental in FY 2008 and the possibility of an additional supplemental bill. In addition, both the House and Senate mark-ups of the FY 2009 request resulted in plus-ups. If there is a final FY 2009 appropriation, it is likely that EM's funding level will be higher than the requested level, which will help toward meeting EM's compliance requirements.

Continuing to manage inventories in a safe manner and in compliance with regulations is always a top priority for EM. In addition, the program is looking for ways to address the highest risk waste, which in most cases is the tank waste or degrading buried waste, in as cost effective a manner as possible. EM is also working to make sure that there is disposal capability for waste streams that require disposal today, at the same time that it secures disposal capability for waste streams in the future. EM supports RW in its goal to open a geologic repository, Yucca Mountain, and to make it available as soon as is reasonably possible. EM is also promoting the development of treatment alternatives in the commercial sector for mixed waste streams and for identifying cost effective technologies to manage EM's HLW and liquid waste streams.

Key issues facing the program include the increasing cost of actually performing work, the uncertainty in the availability of future disposal capacity, and challenges to current DOE policies and EM strategies. EM is evaluating its ability to address excess facilities and waste streams of other Departmental elements such as NE, SC, and NNSA.

NNSA has initiated a comprehensive complex-wide transformation evaluation and plans to publish a draft EIS in the near future that will propose that DOE restructure the nuclear weapons complex. NNSA is likely to declare a large number of facilities excess to their future mission. EM is in negotiations concerning proposed NNSA facilities that may be added to the EM

portfolio. The result will be that EM's total lifecycle cost and its work scope will grow. This is also the case with NE and SC.

EM has made some progress with regard to resolving natural resource damages at some of its closed sites, such as Fernald. The program is also increasingly engaging the trustees at its sites early in the cleanup process in order to ensure that its plans can be informed by potential damages.

EM has also been contacted by outside entities such as commercial generators and other federal agencies, who manage their waste in the commercial realm. These organizations have asked EM to consider taking their existing waste streams that lack commercial disposition paths. EM policy remains that DOE sites are reserved for waste streams generated by the Department.

### Waste Disposition

Ms. Gelles presented a waste disposition update. EM has tried to increase the transparency of its MLLW and LLW disposition plans by creating the publicly accessible Waste Information Management System (WIMS). WIMS provides a wealth of information and communicates the integrated features of EM's waste management complex.

Information on WIMS is available at <http://wims.arc.fiu.edu/wims/>.

Ms. Gelles remarked that the trends in overall volumes of waste are down. EM is considering expanding the Environmental Management/Waste Management Facility (EMWMF) at Oak Ridge to accommodate future OR waste generation, including that from the Integrated Facility Disposition Project (IFDP), which includes excess facilities at the Oak Ridge National Laboratory and Y-12. If the IFDP occurs under a CERCLA framework, the resulting waste would be eligible for the EMWMF, which will then need to be expanded. In the event that the EMWMF is not expanded, IFDP waste will need to be shipped to a regional disposal facility.

On-site disposal facilities are also under evaluation for the Portsmouth and Paducah Gaseous Diffusion Plant's D&D. Once again, these plans are subject to an extensive amount of review and evaluation of alternatives. No decisions have been made.

Ms. Gelles emphasized that it is absolutely critical that EM retain the current off-site disposal facilities and regain access to the Hanford Regional Disposal Facility; currently, EM is only able to send LLW and MLLW to NTS for off-site disposal. A re-evaluation of the impacts of off-site disposal at Hanford was undertaken and combined with the Tank Closure EIS. A draft Tank Closure EIS is currently under development and will be published in FY 2009.

Mr. Wegst asked if Ms. Gelles' office had received a letter from the Nevada Attorney General's office regarding the discontinuation of off-site MLLW disposal at NTS. How would this action impact EM's disposition practices?

Ms. Gelles reiterated that EM has two regional disposal facilities, NTS and Hanford. The NTS facility in question is called the Mixed Waste Disposal Unit. It is an unlined facility in the same area as NTS's unlined LLW facilities. Given the hydrologic and geologic conditions of NTS, this

is a safe and technically defensible configuration given the hydrologic and geologic conditions of NTS. EM was seeking a full RCRA Part B permit so that the program could continue MLLW disposal there indefinitely, but was rejected by Nevada due to the unlined nature of the disposal cell. EM has since worked with Nevada to remove the restriction for off-site waste in exchange for setting a closure period for that specific facility. The conditions of the existing permit allow the NTS to receive up to 20,000 cubic meters of off-site MLLW as long as it is received before November 2010, at which point the unit will be permanently closed. Future MLLW disposal at NTS will require a fully RCRA-compliant cell that includes liner.

In the letter that Mr. Wegst referred to, the Nevada Attorney General objected to MLLW unless certain other issues are resolved. Those issues could potentially impact all of EM's waste disposal activities at Nevada, including the LLW streams. Ms. Gelles explained that because the land was withdrawn from the public to support the establishment of the NTS for use in "weapons testing," Nevada is questioning whether DOE has authority to conduct waste disposal operations at the site. EM's position is that weapon testing generates waste that needs to be disposed, so it is an attendant activity. DOE has been working through the Department of Interior to resolve this issue.

In the event that the NTS is unable to receive LLW and/or MLLW, there will be a very significant impact on the cleanup of all sites. There is no alternative commercial disposal outlet for some higher activity wastes, and DOE policy precludes EM from generating waste streams that do not have a disposition path without a site manager-level exemption.

Ms. Gelles added that a similar policy prevents EM from importing plutonium into the State of South Carolina without a defined disposition path.

Mr. Campbell noted the need for opening up new LLW facilities and asked if DOE had explored that. He also asked if lifecycle cost analyses are required before new facilities are opened.

Ms. Gelles confirmed that lifecycle cost analyses are required prior to establishing new DOE facilities. The House Appropriations Committee issued a report in 2001 that requires a cradle-to-grave analysis and a cost/benefit evaluation before building new on-site disposal facilities or expanding the designed capacity at existing ones. In addition, core business practices require EM to think in lifecycle terms. EM operates under a DOE Project Management Order that requires lifecycle planning before undertaking any capital investments. EM performs these analyses in order to improve its ability to plan and execute projects. The on-site facilities being discussed would be constructed under a CERCLA framework, which requires the same comprehensive evaluations of cost as well as environmental impact.

Mr. Campbell noted that the Los Alamos facility accepts LLW under a RCRA consent order. Ms. Gelles noted that the Area G facility is the exception. If a decision to expand Area G is made, it will be made under DOE self-regulation by NNSA.

Mr. Campbell asked if there was a similar case or precedent for the EM SSAB to review lifecycle cost analyses for expansion of on-site facilities. Ms. Gelles remarked that the analyses of the potential EMWMF expansion at Oak Ridge could be viewed as a precedent, but noted that

this facility falls under CERCLA; any decision on Area G expansion would be made under a different framework. NNSA is in a complicated situation because policy has a clearly stated preference for the disposal of waste on-site, where it is generated. If that is not feasible, then the waste can be sent off-site to a DOE regional disposal facility; however, as discussed, there is uncertainty concerning the availability of those DOE disposal facilities. It is understandable that LANL would not want to rule out the first preference of on-site disposal indefinitely, while EM assesses the viability of regional disposal facilities. Ms. Gelles promised to keep the Board informed on the potential for a new NTS disposal facility.

Ms. Cimon asked Ms. Gelles to comment on EM's plans for sealed source disposition. Ms. Gelles cautioned that it is important not to think of sealed-source materials as though they are one waste stream. There are sealed sources that are clearly, under current NRC classifications, managed as GTCC if they are taken out of service and are not being recycled. These materials are included in the GTCC EIS inventory. Disposition will be determined through the NEPA process.

There is a specific set of sealed cesium chloride sources that fall into the potential GTCC waste stream that have been identified by nuclear security and nonproliferation personnel as the greatest threat for use in radiological dispersion devices, or dirty bombs. The National Academy of Sciences has reviewed this issue and written a report that recommends the near-term phase-out of sealed sources, but there are members of industry and commerce who oppose this action because it will impact industrial activities. In the event that phase-out takes place, it will affect a significant portion of the GTCC inventory and necessitate disposal that EM is not yet prepared to provide. The EIS is not yet complete, and it will take years for EM to ultimately deploy a solution.

A fundamental shift of GTCC into DOE inventories also raises significant policy issues because in the event that DOE takes ownership of them for national security purposes, the GTCC will cease to be technically licensed by the NRC and could be dispositioned under DOE authority at DOE facilities. EM is evaluating disposition of these sources in geologic, enhanced near-surface disposal and intermediate-depth disposal facilities through its EIS.

There are two facilities that currently accept sealed source materials. One is the Northwest Compact operated by the Washington Department of Ecology at Hanford. Eleven states are eligible to send their sealed source waste to this private sector facility. The second commercial facility, the Barnwell Facility in South Carolina, has closed its borders to non-compact generators. Therefore, only the three states in the Atlantic Compact can send waste there. The remaining thirty-six states cannot disposition sealed source material or other LLW generated.

Manufacturers were receiving these sources and consolidating them, and when inventories became a security issue, the Off-Site Source Recovery Project (OSRP) would help get them to disposal; disposal is no longer available for sources that come from 36 states, raising an operational question for OSRP. The issue is being addressed through interagency dialogues, such as a two-day workshop sponsored by the Department of Homeland Security at the Nuclear Energy Institute, in which the NRC, State Department, and NNSA are participating. There will

be a public meeting on source storage issues with the NRC in late September and one cesium chloride and a potential rulemaking. EM will be monitoring these and other developments.

With regard to increased public discussion of using DOE facilities to address commercial disposal shortfalls, Ms. Gelles stated that EM has a statutory responsibility to deal only with DOE wastes and classified DoD wastes. DOE also has broad atomic energy authorities to take title to licensed radioactive material when there is a reason for DOE to do so, where there is a need to secure it or remove it from its location for the protection of the public. Once DOE has title, it can dispose of this material at its sites. However, if DOE were to make such decisions simply because a commercial facility had shut its doors, the delicate balance that exists in the current statutory framework would be upset. DOE struggles to preserve its facilities for disposal of DOE waste.

Ms. Cimon asked if a new business wants to build a nuclear power facility, is there a law or policy at this point that there has to have a disposition pathway?

Ms. Gelles responded that this is an NRC question. There are certain waste confidence provisions that are evaluated when the NRC issues a license. Currently, there is no restriction that says a facility has to have knowledge of a disposition path for radioactive sources before that facility can start fabricating a product that requires radioactive material. Ms. Gelles promised to research this question further. She believes the market will ultimately respond and figure out ways to safely store their waste, and noted that the NRC is very reticent to create a requirement that suggests it is not feasible to store radioactive material indefinitely: such storage may not be prudent to do so, but it is still feasible and can be done safely.

Mr. Darryl Bonner questioned the expansion of the CERCLA disposal unit (EMWMF) at Oak Ridge to accommodate the waste streams generated from IFDP. Ms. Gelles said it is possible that the total volume of waste generated through IFDP may not be able to be accommodated at EMWMF even after it is expanded. Right now, however, it is premature to make that judgment. Ms. Gelles then provided background, saying that Oak Ridge has enjoyed a balanced approach to date on how waste streams are dispositioned. Certain high-activity wastes go to the Nevada Test Site, even though they could safely go to EMWMF. EMWMF has been reserved for classified wastes that are generated through CERCLA activities as well as lower-activity wastes. When non-destructive assay questions arose about certain waste streams coming out of the K-25 or K-27 buildings, EM decided to send the source of those waste streams off site rather than to EMWF. Such decisions are being made case-by-case, and waste stream by waste stream. Ms. Gelles anticipates that EM would continue this approach as plans for the IFDP are refined.

Ms. Cimon asked why the Waste Isolation Pilot Plant (WIPP) is backfilling with contact-handled (CH) waste when it has not filled in remote-handled (RH) cavities. Is this going to stop? Ms. Gelles noted that there is always some uncertainty in EM's waste forecast. In some cases, EM has discovered that as TRU containers are received from retrievable storage, they are re-characterized and found to be MLLW rather than TRU thus becoming eligible for off-site disposition rather than the more costly disposition as TRU to WIPP. To date, more than 56,000 cubic meters of Defense transuranic waste has been disposed.

In April, EM hit a milestone with more than 8 million miles traveled without a significant incident. Of the 6,800 shipments, 171 have been remote-handled TRU waste, most of them from Idaho. It is much more difficult to package and ship remote-handled TRU waste than contact-handled (CH) TRU. But even with CH TRU waste, EM is having a difficult time providing a sufficient feed rate to the certification units for cost-effective filling of the pipeline for CH TRU waste. That situation has everything to do with the difficulty of characterizing and meeting all of EM's requirements at WIPP. There is a tightly drawn "regulatory envelope" that constrains what goes to WIPP; the disposal process is costly and time consuming.

In addition, the RH TRU waste baselines need to be approved by both EPA and the New Mexico Environment Department on a site-by-site basis, and very specific waste streams need to be approved. There are certain calculations, called dose-to-curie models that need to be approved for each RH waste stream. In addition, the packaging of RH TRU waste is being done in a hot cell at some of these sites, and that requires very extensive training and startup. Sometimes it requires the refurbishment of hot cells, which was the case at the Argonne National Laboratory.

EM had wanted to have the RH permit approved in New Mexico years before it was obtained, but a very protracted regulatory approval process took place. Shipping RH from Idaho was the first priority. Now the existing Idaho inventory is nearly depleted, and EM is struggling to gain regulatory approval and be physically prepared to receive waste from other RH generating sites. Argonne was the second site to come online. EM expects Oak Ridge to come online next. There are 16 containers at Los Alamos that need to be shipped. There are many incentives on contracts related to these waste streams. Again it is a complicated and time-intensive process to work through all the issues.

One possible "workaround" is a shielded container that EM hopes to have permitted within the next year. It is a lead overpack within which a 30-gallon drum of RH waste will fit. This allows handling of the container as if it were CH TRU. EM has committed to the State of New Mexico that even if WIPP receives remote-handled waste in lead overpacks the volumes will still count against the volume limits for RH waste that are in the permit, but the RH waste can be placed right beside CH waste. From an operational standpoint, this allows handling of RH waste as if it were CH. Ms. Cimon responded that the situation is still unacceptable.

Ms. Gelles noted that in a time of constrained budgets, EM is trying to figure out how to fully utilize the receipt capacities at WIPP without significantly increasing the cost of the TRU program. There is competition for the resources that are available for dealing with liquid waste, nuclear materials, and low- and mixed low-level waste.

Ms. Gelles used the Idaho National Laboratory (INL) consolidation plan as an example of the program efficiencies that are being sought. It is very expensive on a drum-by-drum basis to send waste from Hanford to WIPP. One suggestion to reduce these costs was to establish a central characterization program at Hanford. However, budget constraints will not allow the program to retrieve waste at a rate that would allow EM to cost effectively characterize, remediate, repack, and certify the waste, such that it could go to WIPP.



The solution in a budget-constrained environment is to transport the over-sized drums to Idaho, where they can be compacted for optimized shipment under the existing, approved certification program. This keeps waste moving out of Hanford and allows EM to minimize additional expenses while maximizing the investment already made at INL and optimizing already funded capacity at WIPP. When resources are available to support a steady rate of TRU certification and shipping, shipments from Hanford directly to WIPP will resume.

The proposed “workaround” is not popular with some stakeholders. Shortly after EM issued a record of decision, there was a detailed letter from stakeholder groups challenging the basis of that decision under NEPA. EM replied to the letter in July and hasn’t heard anything further.

There is going to be an expanded outage at WIPP from December 2008 through January 2009 in order to repair the waste hoist and upgrade site water lines. During the outage, EM plans to make 1,000 drum shipments from Hanford to Idaho and to send repackaged waste from Nevada to Idaho. EM will meet the terms of the Idaho Settlement Agreement, where waste is handled at Idaho within six months of receipt and is off the site within six months of treatment. [Update: EM has subsequently decided to defer the Hanford to Idaho shipping.]

Ms. Gelles recounted issues during the past year at WIPP that resulted in outages, such as problems with a water line and problems with containers. One incident with a slightly damaged outer container caused WIPP to do some safety refresher training. Recent shipments have been eight or nine per week, compared to full capacity operations of 21 CH and five RH shipments per week.

TRU shipments from Savannah River are currently suspended pending the development of a new transportation corridor through Texas. This also affects Oak Ridge shipments. EM is planning to cease shipping from Hanford to WIPP in December 2008. [Update: a new temporary shipping corridor was established. SRS shipments resumed and Oak Ridge CH TRU shipments began in September.]

### Liquid Waste

Ms. Gelles then turned her attention to liquid waste. There is tank waste in liquid form at Savannah River and Hanford. Managing these liquid waste streams comprises one-third of EM’s budget. There is also HLW in calcine form at Idaho. EM has vitrified HLW at West Valley, which is the responsibility of the State of New York and will be dealt with by the Office of Civilian and Radioactive Waste (RW). Progress continues in tank retrieval at SRS. EM has been implementing Section 3116 which allows EM to make determinations about how liquid tanks that have been emptied can be closed at Idaho and Savannah River. EM has made publicly available the F Tank Farm performance assessment that provides the comprehensive strategy for how EM will manage these tanks once they are emptied. NRC is assisting.

EM is constructing the Waste Treatment Plant (WTP) at Hanford; the Integrated Waste Treatment Unit for sodium-bearing waste at Idaho; and the Salt Water Processing Facility (SWPF) at Savannah River, which is needed to prepare liquid waste for effective and efficient treatment at the DWPF. EM is also making significant investments in R&D, as reported by Mr. Gilbertson earlier.

### Office of Compliance

Ms. Gelles then provided the Office of Compliance update on Karen Guevara's behalf. She noted that it has been over a decade since the last Complex-wide Review of Waste Management, which focused on vulnerabilities, identified by the Defense Nuclear Facilities Safety Board. Many of the insights gained from that review resulted in specific policy changes and reporting requirements that are part of DOE's Current Order 435. EM is planning to undertake a more limited review during the upcoming year. The plan is to capture opportunities for improvement in preparation for a proposed significant revision to the DOE Waste Management Order.

Ms. Gelles discussed GTCC LLW. DOE has a statutory responsibility under the LLW Policy Act amendments to provide disposal for GTCC. In 2006, EM gave Congress a report that estimated the cost and schedule required by the Energy Policy Act of 2005. EM is currently working on the EIS. The scoping period was July – August 2007. Internal DOE and EPA review of the draft EIS will begin by the end of the 2008 calendar year. A realistic target date for making that draft EIS publicly available is May 2009. Public meetings on the draft are expected during the summer of 2009, and a final EIS is expected in mid 2010.

The Energy Policy Act of 2005 inserted Congress into the EM process and requires a report on alternatives that were evaluated. EM expects to issue this report for GTCC disposition soon after the final EIS. The Energy Policy Act also requires that DOE await Congress' action before moving toward implementation.

The alternatives for GTCC waste to be assessed are geologic disposal at WIPP, geologic disposal at Yucca Mountain, enhanced near-surface and intermediate-depth disposal, and a no-action alternative defined as continued storage at the site where the waste is generated. Savannah River and Oak Ridge have been eliminated as alternatives for intermediate-depth disposal due to groundwater conditions at these sites.

Extensive coordination is required for this EIS, especially with Tribal nations, who are going to be part of a very formal consultation process that DOE is developing and employing. Licensees will have a voice in the process, as will industry, because commercial entities are generating GTCC waste.

### Nickel Disposition Project

EM also is working to identify a disposition path for more than 15,000 tons of classified nickel that has been generated through cleanup efforts at the gaseous diffusion plants and currently is stored at Paducah and Oak Ridge. EM's strategy is to competitively sell the nickel to a qualified bidder who can resize it, decontaminate it, and fabricate it into an end product that can then be deployed in a licensed environment; the moratorium on the free release of volumetrically contaminated metals remains in effect, and under the moratorium, the nickel cannot be released to a non-licensed environment. It is envisioned that the RFP will require bidders to have all the licenses and permits in place. The successful bidder also must show capacity to enforce a rigorous set of controls in order to maintain custody of the nickel as it is decontaminated to International Atomic Energy Agency's clearance levels. Environmental groups are watching this effort very closely, as they are adamantly opposed to the release of any scrap metal that comes

from the DOE complex, even if it is proven to be clean. EM is taking a conservative approach to ensure that if this material is to be used later in a reactor, waste container, and batteries or in some other licensed or DOE-controlled environment, then it will be dispositioned as radioactive waste and will never be released into commerce for recycling. Some additional NEPA analysis may be required before the NRC would approve a license for a commercial entity to possess this material. Due to such requirements and restrictions, EM will significantly discount the value of the nickel when it is sold.

EM solicited public comment and asked industry to respond to EM's nickel strategy in March 2007. Based on the input, EM developed the alternatives that were analyzed in a draft National Environmental Policy Act (NEPA) Environmental Assessment (EA) document, published in June of this year following its publication. EM received more than 150 public comments on the document, the majority of which were not supportive. EM is addressing issues raised in those comments and plans to move forward and finalize the EA, so that it can proceed with the final sale sometime in 2009. EM hopes to be able to keep proceeds from the sale and reinvest them at EM sites.

Mr. Wegst asked about waste streams from Portsmouth. Ms. Gelles explained that Portsmouth D&D is expected to generate significant volumes of waste, but a decision has not been made as to whether that waste will remain in a new on-site cell or will go off site. She added that Portsmouth is making excellent progress in dispositioning its legacy waste.

Ms. Leckband commented on Congress' involvement in the GTCC EIS. Ms. Gelles indicated that Congress' rationale for involvement is concern regarding the default disposal configuration of geologic disposal. Further, Congress is aware of opposition to the Nuclear Waste Policy Act and the deployment of Yucca Mountain as a waste site, at the same time that WIPP is very constrained under the WIPP Land Withdrawal Act as to what it can accept. Congress anticipates that implementation of either of those disposal solutions (WIPP or Yucca Mountain), which are assumed to be the technically appropriate ones at this point, may require some legislative changes. It is also very possible that there will be no one-size-fits-all solution for all the waste streams.

Ms. Antonucci asked how long it would take for the TRU transportation issue to be resolved. Ms. Gelles noted that establishing a new transportation corridor is a detailed and public process that can take weeks to months to complete. Emergency preparedness training needs to take place before the corridor is utilized. [Update: an alternate corridor was established quickly and began use in September.]

### **Public Comment Period**

The facilitator, Mr. Gomez, called for comments from the public, whereupon there was no response.

At 4:27 p.m. on September 16, 2008, the meeting was adjourned, to reconvene at 8:30 a.m. on September 17, 2008.

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**Wednesday, September 17, 2008**

### **Opening Remarks**

Mr. Gomez welcomed participants to the second day of the meeting.

Ms. Nielson reviewed the day's agenda.

Mr. Frost took a moment to recognize the EM SSAB support-staff members and their role in organizing and hosting the Chairs meeting. He also thanked the Chairs for their commitment to the EM SSAB and for their contributions to the EM program.

### **EM Program Update – James Rispoli, Assistant Secretary for Environmental Management**

Mr. Rispoli recently had the opportunity to speak at a World Federation of Scientists conference in Italy; he shared a part of this presentation with the EM SSAB Chairs.

EM has to deal with first-of-a-kind issues and has made significant investments throughout the complex to disposition waste and accomplish its mission. Examples of these investments include facilities such as the WTP Hanford, and technologies to treat waste. Therefore, research and development is critical to the program's success, and EM has come a long way in 20 years. Mr. Rispoli remarked that the program will continue to advance technologically. He then reviewed a number of programmatic successes.

#### Disposal of TRU Waste

WIPP is the first and only deep geologic repository for TRU waste. The salt that comprises the storage facility at WIPP provides an ideal disposal formation for TRU waste; it is geologically stable, elastic, not highly permeable, and located in a very arid region in the American Southwest.

Not only has EM demonstrated that the safe disposition of waste in a deep geologic repository is possible, but it has also demonstrated that the program can also effectively work with the communities through which it transports waste. In 2002, EM executed approximately seven shipments to WIPP per week, for a total of 304 total shipments. To date, the program has successfully completed 6,500 TRU waste shipments, at a rate of approximately 30 shipments per week. In 2002, 28 of the EM sites stored TRU waste; EM since has reduced that number to 15.

### Spent Nuclear Fuel

EM is responsible for 2,400 metric tons of spent nuclear fuel that is stored at three sites: 2,100 metric tons in Richland, 260 metric tons at INL, and 30 metric tons at SRS. In 2002, less than 10 percent of EM's spent nuclear fuel was in dry storage. By the end of 2008, EM will have transitioned the spent nuclear fuel at Richland and Idaho into dry storage [as opposed to basins and/or wet storage]; only the L-Basin at SRS still contains and receives spent nuclear fuel. The purpose of converting spent nuclear fuel from wet storage to dry storage is to reduce the risk of leakage; dry storage is a major improvement in safety for both the community and the environment.

EM has had to address the K-Basins at Hanford, which were known to be leaking radiation-contaminated water into the vadose zone. Since FY 2002, the program has transferred the spent nuclear fuel from those basins and is in the process of removing structures in order to evaluate the ground below.

### Special Nuclear Materials

EM manages more than 30 metric tons of excess special nuclear materials such as plutonium, enriched uranium, and U-233. The Department is currently constructing a plant at SRS to process special nuclear materials, specifically plutonium, and to fabricate MOX fuel that can be used for commercial nuclear power, or in some cases, dissolved, recovered, and disposed of as waste. EM is also down-blending HEU to a low enrichment level for use as commercial reactor fuel and/or long-term storage.

Since 2002, EM has upgraded the K-Area Materials Storage at SRS to allow for the safe storage of all of DOE's surplus plutonium. In 2007, DOE announced its decision to consolidate surplus plutonium at SRS, for either conversion into fuel or disposition as waste. This is another significant accomplishment for the Department that will reduce risk across the EM complex. The plutonium consolidation effort also includes materials from NNSA sites.

### High-Level Waste

A number of significant capital construction projects have been undertaken in order to address EM's high-level waste, such as the WTP at Hanford, the SWP Facility at SRS, and the Sodium-Bearing Waste Facility at Idaho. These are essentially chemical engineering plants that will prepare and process waste into acceptable forms for disposition. Other capital investments include the DUF 6 conversion facilities at the Portsmouth and Paducah sites, and Building 3019 at Oak Ridge.

Pending the completion of these projects, EM has had to store HLW in more than 220 underground tanks throughout the complex, including some tanks that have exceeded their design-life. These tanks are monitored constantly due to the threat of leakage. At Hanford alone, the cost of proper management and surveillance for the underground tanks, from a safety perspective, costs the government over \$200 million per year.

To date, EM has over 2,800 canisters of vitrified HLW awaiting permanent disposition at Yucca Mountain; this estimate includes the 275 canisters that resulted from the successful closure of the

West Valley, NY tanks and the 2,500 produced by the DWPF at Savannah River. However, the program still has a long way to go. The final projected number for permanent HLW disposition at Yucca Mountain is 22,000 canisters.

Mr. Rispoli shared that EM has also successfully grouted 11 out of 15 tanks at INL. The remaining four will be addressed by the Sodium-Bearing Waste Facility at SRS.

### Soil and Groundwater

Under the leadership of Mr. Gilbertson, EM has reinvigorated a robust groundwater and technology program. Maintaining a research and technology development program is critical to EM's success. As noted in a recent report by the NAS, it is important that DOE not rely purely on contractors to develop new technologies because contractor tenure is fairly short-term and finite. Contractors are incentivized to obtain results during the contract period, not over the long-term. Lifecycle research and technology development are arguably better suited to the agency.

The EM SSAB had previously made a recommendation regarding tools to monitor groundwater plumes. EM-20 has since implemented that recommendation and developed a stop-light scorecard that depicts the status of plumes site-by-site along with their corresponding treatments. This tool provides a snap-shot of which methodologies are most successful and can be brought to bear on other plumes that are not responding to alternative technologies.

Mr. Rispoli reported that EM has cleaned up approximately 240 km<sup>2</sup> of contaminated groundwater and stabilized more than 100 groundwater plumes. EM has also employed innovative groundwater treatments and barrier technologies. For example, the program has successfully used vegetable oil as a biostimulant to treat and convert chromium contamination, and has employed mineral barriers to stop the migration of contaminated groundwater.

### Programmatic Challenges

- Budget Priorities and Unfunded Liabilities

A number of other DOE programs – NNSA, SC and NE – have identified facilities to transfer to EM for cleanup. Previously, it had been proposed that the EM program lock its scope, push toward cleanup, and essentially work its way out of business. This proposal also included the creation of a Future Liabilities Office that would be responsible for any cleanup needs that existed outside of EM's scope. However, in 2006 the Deputy Secretary issued a policy memorandum that reestablished EM as the designated agent for radiological contamination and cleanup, the rationale being that EM has invested a lot of time and effort in developing its cleanup expertise, management models, and rapport with contractors, in addition to reestablishing its technology capabilities.

As a result of this policy decision, EM has received an approved mission need for a large number of facilities, specifically at Oak Ridge, from NNSA and SC. These Departmental programs, along with NE, have also nominated more facilities for transfer to EM. Evaluating these proposals is a complex process that involves numerous walk-throughs and tours to determine what the facilities contain, what challenges and risks they present, and whether they are

appropriate for the EM program. EM will then have to determine if the new facilities pose greater risks than the program's current scope and how they should be integrated into existing funding projections and schedules. It is important to note that EM's current funding profiles do not leave a lot of latitude for additional scope and that funds do not exist for these activities. Once EM completes its walk-throughs and better understands the magnitude of work and costs necessary to cleanup these facilities, it will be able to begin evaluating the impact these decisions will have on the program's schedules and seek the appropriate resources and funding. Feedback and advice from affected stakeholders will be solicited and greatly appreciated as EM moves forward.

- Technical Challenges

Investment in technology is critical to EM's success. The program must find innovative solutions to its technical challenges despite increasingly scarce resources. Mission completion is dependent on the successful development and operation of large, first-of-a-kind facilities and technologies.

#### Topics for the EM SSAB

- The EM Budget Process and Effective Stakeholder Involvement

EM has worked to ensure that community involvement is incorporated into the budget process; the EM SSAB is integral to this effort and its input is highly valued. Vibrant dialogue between the Board and the sites will greatly benefit the program. Although EM may not be able to implement all of the EM SSAB recommendations, it is actively listening and seeking feedback.

- Engineering and Technology

The EM SSAB has provided valuable feedback on the Engineering and Technology Roadmap. The Board's continued involvement and engagement with this effort would be appreciated.

- Waste Disposition

The EM SSAB Chairs have received regular updates during their bi-monthly conference calls on the National Waste Disposition Strategy. Mr. Rispoli remarked that it would be a powerful statement if the Chairs endorsed a nationwide disposition strategy. There is a certain degree of reciprocity amongst the sites, where some have greater processing and packaging capabilities and others greater disposition capabilities. An example of this cooperation occurs at the INL, which is able to package RH TRU for shipment to WIPP, a capability that does not currently exist at every site. Mr. Rispoli indicated that EM would appreciate the EM SSAB's continued engagement on these issues.

- Communications

The EM SSAB has been a key player in improving the program's communications and the Board's continued involvement and input would be greatly appreciated.

The Secretary recently issued two important Departmental initiatives that relate to EM's relationships with Tribal nations and with community members concerned with Environmental Justice issues surrounding the complex's sites and facilities.

With regard to Tribal nations, the Secretary issued a Tribal Policy Implementation Framework for EM, NE, SC, and NNSA, in order to improve the programs' government-to-government relationships. Several of the local boards have Tribal representatives and may already be aware of this policy. Implementation of the Framework demonstrates EM's commitment to DOE's Tribal policy, as well as the importance of effective Tribal nation consultations in the program's decision-making processes. Information on DOE's American Indian Policy is available at <http://www.directives.doe.gov/pdfs/doe/doetext/neword/144/n1441.pdf>. Information on the Tribal Policy Implementation Framework is available at <http://www.em.doe.gov/Pages/TribalNations.aspx>.

Secretary Bodman also issued an updated Environmental Justice Strategy that requires DOE and its programs to establish and maintain an integrated approach to implementing environmental justice activities. EM is committed to exploring new ways to improve and expand on its environmental justice practices and awareness and would benefit from the EM SSAB's input. Information on the Environmental Justice Strategy is available at [http://www.lm.doe.gov/env\\_justice/policy.htm](http://www.lm.doe.gov/env_justice/policy.htm).

#### EM SSAB Accomplishments

- EM SSAB Management

EM has successfully closed out the local boards at the Fernald and Rocky Flats sites and recently established a new local board for the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio. Mr. Rispoli recognized the significance of the EM SSAB and the valuable contributions of its members. He added that it is his sincere hope that his successor will likewise recognize the value of the EM SSAB and continue to support the Board.

- Awards and Recognition

In 2007, the SRS Citizens' Advisory Board (CAB) received the EPA Citizen Excellence in Community Involvement Award for its dedication and commitment to the residents and counties that it represents. The SRS CAB advanced public education on a variety of topics related to SRS by leading a multi-sponsored educational forum and publishing a semi-annual newsletter.

In 2006, the Oak Ridge SSAB (ORSSAB) received the EPA Citizen Excellence in Community Involvement Award in recognition of two major accomplishments that strengthened the Oak Ridge community's participation in EM's cleanup efforts. These accomplishments included the creation of a Stewardship Education Resource Kit and the development of a process to ensure that contaminated parcels of DOE land are formally tracked and documented by the County Register and local GIS resources.

- Federal Advisory Committee Act (FACA) Compliance

DOE has undertaken a Department-wide FACA compliance initiative. Thanks to the hard work of the local boards and their staff who updated all of the Standard Operating Procedures, the EM SSAB is fully FACA compliant.

- EM SSAB Advice and Recommendations



Since the last EM SSAB Chairs meeting in April 2008, EM has received 23 recommendations from the local boards. Mr. Rispoli added that since the beginning of his tenure in 2005, EM has received over 250 recommendations from the collective boards and 10 recommendations from the EM SSAB chairs as a result of their semi-annual public meetings. He emphasized that the EM senior leadership truly appreciates the EM SSAB's contributions to the program and works very hard to implement the boards' recommendations.

### Conclusion

Mr. Rispoli concluded his presentation by noting that EM's record proves that safe, effective nuclear waste management and cleanup is possible. Both the federal workforce and the program's contractors stress the importance of safety throughout the complex and have continued to bring trends of actual injuries down, far below the industry averages in the U.S.

EM's work provides a global benefit that transcends nuclear cleanup. The program is helping to rebuild the nuclear understanding and workforce in the U.S. Its operations have also required vendors to readjust and increase their capabilities. Furthermore, initiatives such as the plutonium consolidation at SRS provide a nuclear non-proliferation benefit.

Enormous challenges lie ahead. There is a pressing need for EM to continue to make technological advances. Furthermore, the program is expensive; it is the federal government's third largest liability and the largest cleanup program in the world. EM will only be successful if taxpayers continue to support the pursuit of this difficult, expensive work. The EM SSAB's role is vital to this effort.

### Discussion

Ms. Leckband commended Mr. Rispoli for his involvement in the EM SSAB. She also asked Mr. Rispoli to clarify his expectation for the EM SSAB regarding advice on EM's unfunded liability issue.

Mr. Rispoli explained that the EM SSAB and particularly the local boards that will be impacted by the unfunded liability issue – namely the ORSSAB, INL CAB, and NNM CAB – could assist DOE by providing input on the prioritization of EM's work in light of additional work scope. He also clarified that the term "unfunded liabilities" refers to new liabilities that will be added to the EM program that have not been previously accounted for or recognized as EM scope in the program's independently audited baselines and lifecycle costs. Once EM has quantified the cost and risks of the liabilities, it will need to integrate those facilities into its existing schedules and funding profiles. Mr. Rispoli emphasized that although this is still a hypothetical scenario, EM wants to ensure that the entire process is transparent and to proactively seek community input.

Mr. Ralph Phelps noted that although EM leads its European counterparts in many technological advances, the program is still behind in its ability to reprocess spent nuclear fuel. He asked Mr. Rispoli if EM had attempted to bring that capability back to the U.S.

Mr. Rispoli explained that the U.S. lost that particular capacity many years ago when a moratorium was placed on nuclear waste reprocessing programs. NE is currently working very

hard to rebuild this capability and is well-connected with the international community because the future of nuclear power will depend greatly upon reprocessing.

Mr. Rispoli also added that Mr. Gilbertson has been working with the UK to leverage technological investments as part of EM's bilateral agreement.

Mr. Campbell commended Mr. Rispoli for the rigor and high standards he has brought to EM's project management practices, and in particular to the certified baselines. Furthermore, Mr. Campbell mentioned that the EM SSAB has greatly appreciated the new DOE staff and senior leadership that it has had the opportunity to interact with.

Mr. Rispoli added that the EM SSAB's recognition will be helpful in EM's transition planning for the next administration. The certified baselines represent one of EM's most significant investments and accomplishments that will greatly benefit the program going forward and that he hopes they will be institutionalized and retained under the next administration. Lastly, with regard to the transition planning, Mr. Rispoli reported that EM has solid bipartisan support from Capitol Hill; both the lawmakers and their staff recognize the importance of the program's mission.

### **Round Robin: Top Three Site-Specific Issues and EM SSAB Accomplishments**

Each EM SSAB was provided an opportunity to share the current top three issues facing its site as well as a significant Board accomplishment.

#### Hanford Advisory Board (HAB) - Ms. Leckband

1. Proposed delays to empty underground tanks and vitrify tank waste
  - The Hanford site is in the midst of Tri-Party Agreement (TPA) negotiations regarding delayed milestones for tank waste retrieval and vitrification.
    - The HAB is very concerned about the outcome of these negotiations and hopes for an equitable resolution.
  - In some cases, tank waste retrieval has been delayed by decades. The waste retrieval from the larger underground tanks has been delayed until 2043, which exceeds their design life.
  - Start-up of the WTP has been pushed back until 2020.
2. Remediation activities and RODs regarding buried waste on the 200-Area plateau
  - The HAB believes that waste buried before 1970 still needs to be characterized, retrieved, treated, and dispositioned, not just capped. There is a lot of concern that this waste has not been appropriately characterized and that much of it is, in fact, TRU waste.
  - TRU waste is TRU waste regardless of when it was buried. The HAB is hopeful that the 200-Area Plateau ROD will account for the characterization of this buried waste.
3. Adequate funding to meet all clean-up requirements and retain trained workforce in the face of three new contracts
  - The TPA has never been fully funded, and work has been delayed year after year.

- The HAB is very concerned that the transition of its three major contracts, economic pressures, and an aging workforce, will result in further delays.
  - It is very important that these transitions happen without incident and that they account for workforce transition and training, as well, in order to ensure continuity and progress.

#### Accomplishment: PW 1, 3, 6 Workshop

- The HAB worked with DOE and regulators to host a first-of-a-kind workshop to develop criteria and a plan for initial waste-site remediation decisions in the 200-Area near the Plutonium Finishing Plant.
- Although there was real tension between the original proposed plan and the stakeholder expectations, all parties were able to reach an equitable resolution through the PW 1, 3, 6 Workshop.
- This Workshop represents a successful cooperative effort that has set a positive precedent for early stakeholder and HAB involvement in the pre-decisional cleanup process.

#### Northern New Mexico Citizens Advisory Board (NNMCAB) – Mr. Campbell

1. DOE funding for the past three years (and probable near-term funding) has been at about 50% of the certified baselines. Reduced funding levels greatly impair LANL's ability to meet its consent order obligations, which require the cleanup and closure of legacy waste sites and facilities by 2015.
2. Install 20-plus new groundwater monitoring wells to provide reliable detection of chemicals of concern.
  - There is concern that the existing monitoring wells cannot provide reliable data on trace-level constituents due to the use of drilling muds that may have impaired their ability to produce representative samples.
  - 20 new groundwater monitoring wells are currently being drilled at LANL with the use of advanced techniques, such as air rotary casing. The drilling is difficult, time-consuming, and expensive, but will result in more representative samples and hydrostratigraphy characterization data.
3. Increase TRU waste shipments to WIPP
  - LANL's MDA-G is a 60-acre site that hosts approximately 20,000 drums of TRU waste. The majority of this waste is stored in tents on MDA-G's surface, but there are also some buried retrievable canisters.
    - It is important to ship this TRU waste off site so that LANL can further characterize and perform work on MDA-G.
  - MDA-G is more than 40 years old and also contains pre-1970 buried TRU waste in approximately five of its large unlined pits.
    - The current corrective measures and baseline assumptions indicate that this waste will be capped and closed in place.
    - The NNMCAB is concerned that early and higher activity wastes, such as pre-1970s TRU, need to be characterized and carefully evaluated to ensure that capping in place is an adequate and appropriate disposition method for those materials. It is also

important to ensure that those contaminants do not continue to migrate into the regional aquifer.

Accomplishment: The NNM CAB, DOE, and LANL hosted a successful public forum on the corrective measures evaluation and alternative disposition proposals for MDA-G.

#### Oak Ridge Site-Specific Advisory Board (ORSSAB) – Mr. Bonner

##### 1. Building 3019 Project

- The Building 3019 Project is also known as the Uranium-233 down-blending reprocessing project and was added to the Oak Ridge site's EM scope several years ago without additional dedicated funding.
- The ORSSAB is concerned about the impacts of this project on other site milestones and timelines. Additionally, the building, in which the uranium being stored for down-blending, is deteriorating. Building 3019 is the oldest Hazard Category II facilities in DOE.
- The ORSSAB is concerned that the Building 3019 project will continue to be a significant drain on the Oak Ridge EM budget throughout its lifecycle, which extends for at least the next 11 years.

##### 2. Impact of historic preservation at the Oak Ridge Reservation

- This issue gained prominence with regard to the Oak Ridge site's K-25 north tower.
  - DOE has identified K-25 as one of the complex's signature facilities; it is currently being evaluated in a National Park Service study on historic structures.
  - The building has deteriorated over the years and has raised legitimate safety concerns that will bear on its candidacy for historical preservation and transition into a landmark.
- The ORSSAB co-sponsored a public forum on the K-25 building in February 2008 to discuss its significance and preservation. The meeting was attended by approximately 160 people and attracted media attention.
- The ORSSAB submitted a recommendation in March 2008 seeking the implementation of an existing Memorandum of Agreement to preserve the K-25 building's north tower.
- There are a number of facilities that are destined for inclusion in the Integrated Facilities Disposition Project (IFDP) from both NNSA and the Oak Ridge National Laboratory. Many of these buildings date back to the days of the Manhattan Project. The ORSSAB continues to work with DOE to evaluate and incorporate historic preservation into the IFDP in a timely and cost-effective manner.
- The ORSSAB will continue to explore how it can provide further recommendations and ensure that EM fulfills its mandate to incorporate community values with regard to historic preservation.

##### 3. The impacts of funding on milestones

- The proposed Oak Ridge EM budget for FY 2009 has been reduced by approximately 12 percent and the ORSSAB is concerned that this will impact the work on the site.
- Completion of the accelerated cleanup project at the East Tennessee Technology Park has already slipped from its original date of 2008 to 2017.

- Lack of funding for LLW disposition also has become an issue.

#### Accomplishment: Leadership in public involvement

- The ORSSAB plays a major role in initiating and facilitating public involvement with the EM program. Examples of this leadership include outreach programs and presentations, the Community Oral History Initiative, and the previously discussed K-25 Public Meeting.

#### Nevada Test Site Community Advisory Board – Mr. Hermann

##### 1. Transportation of radioactive waste to NTS

- Shipments to and from NTS have increased overtime. Additionally, the populations and communities surrounding the NTS shipping routes have increased as well.
  - In response to this expansion, the NTS CAB and local community enlisted the guidance and knowledge of an expert on transportation software to speak to the NTS CAB's Transportation Waste Committee.
  - This opportunity enabled the Committee to make recommendations on the software parameters that should be used in DOE's transportations studies. The parameters have been handed over to the local DOE EM program; results are expected in the near future.

##### 2. UGTA FY 2009 drilling program – potential for drilling a CAB-recommended well

- Contamination of the UGTA resulted from approximately 828 underground nuclear tests, many of which occurred near and/or injected large amounts of radionuclides into the water table.
- EM has developed a plan for FY 2009 to drill characterization wells for the UGTA.

##### 3. Continuing negotiation between DOE and DoD for closure of Nevada Site Office EM Soils Project cleanup activities of plutonium-contaminated soils on the Nevada Test and Training Range

- Negotiation between DOE and DoD continues regarding the cleanup of contaminated soil from the weapon safety tests known as Project 57 and Project Clean Slate.
- DOE and DoD need to reach an agreement on the level of required cleanup for these sites.

#### Accomplishment: The CAB's primary well location recommendation was selected by DOE's Technical Working Group as one of the sites to be drilled in FY 2009

- The NTS CAB was given unprecedented access to the NTS technical working group, which included the opportunity to site a well and participate in closed, internal meetings.
- As a result of several years of work, the NTS CAB's UGTA Committee made recommendations for well placement that were approved and are currently being implemented by DOE. Two of the top three wells slated for drilling were recommended by the NTS CAB.
  - A cooperative approach to well-siting created a mutually beneficial relationship between DOE and the public.

### INL Site EM Citizens Advisory Board (INL CAB) – Mr. Maynard

Before discussing the INL CAB's Round Robin topics, Mr. Maynard commended Mr. Rispoli for his role in the recent revision of the Idaho settlement agreement and noted that he was impressed with the fact that it will open INL to receive waste on a six-month, biannual basis. For years there have been discussions about establishing INL as a western hub for DOE, and Mr. Maynard is very pleased with the outcome of the agreement.

#### 1. Support DOE cleanup mission and adequate funding

- Funding has impacted a number of the INL site's cleanup programs, such as D&D efforts and the operation of the Integrated Waste Treatment Unit.
  - While these impacts are not insurmountable, there is concern that they will only get worse in the future.
- INL, like the other EM sites, would greatly benefit from sustained funding levels.

#### 2. Protection of groundwater

- Groundwater protection is an ongoing concern because the INL site sits directly above the surrounding communities' largest aquifer.
- The local field office has performed an excellent job with regard to monitoring contamination; however, the INL CAB asks that DOE continue to support funding, R&D, and technological advances to improve on this effort.
- The INL CAB is also concerned that the design and construction of caps is inadequate with regard to long-term stewardship. Since EM intends to leave underground waste tanks in place along with some contaminated soils at National Tribal Environmental Council (NTEC), it is critical that barriers like caps fulfill their purpose long-term.

#### 3. Opening a permanent repository for HLW waste and spent nuclear fuel

- Delays in funding for Yucca Mountain will impact INL's settlement agreement.
- The INL CAB would like to know whether DOE is exploring alternative solutions to Yucca Mountain, given the current makeup of the Congress.

Accomplishment: Ability to quickly respond to DOE regarding issues that are time-sensitive

- The INL CAB is proud of its responsiveness to the local field office and its ability to make timely recommendations.
- The INL CAB has an excellent working relationship with its Deputy Director for Field Operations, Mr. Rick Provencher, and its Federal Coordinator, Mr. Bob Pence.

Accomplishment: Transitioned five new members to the board this year

- The INL CAB recently transitioned its chairmanship and added five new members, resulting in a more balanced and diversified board.

Mr. Rispoli commented that the revised Idaho settlement agreement was the culmination of months of successful negotiation and resulted in a number of positive lessons learned. Most importantly, professionalism and open dialogue between all of the parties involved can lead to a

more satisfying and far better outcome for all.

Savannah River Site's Citizen's Advisory Board (SRS CAB) – Ms. Antonucci and Ms. Jzar

1. Liquid waste operations/tank closure

- SRS has a very large volume of liquid tank waste that is addressed by three major programmatic elements: salt waste treatment and disposal, sludge batch preparation and processing, and tank closure. These elements represent an integrated comprehensive plan that will help further SRS's EM mission through lifecycle acceleration.
- There are still 51 tanks on site; two are closed, while the remaining 49 contain approximately 36 million gallons of waste.
- In the spring of 2008, SRS began normal operations of its interim salt waste processing facilities – the Actinide Removal Process and the Modular Caustic Side Solvent Extraction Unit. Salt waste accounts for approximately 90 percent of the tank space in the SRS tank farms. The removal and processing of salt waste is a significant accomplishment and marks a major step forward in the program's closure of the aforementioned 49 tanks.
- In 2008, DOE also made the decision to separate liquid tank waste operations from the SRS M&O contract and award that work separately. The site is currently undergoing transition to a new M&O contractor that won its bid in August 2008. The liquid tank waste operations contract has not been awarded as of yet.
- The SRS CAB's primary concern is that DOE accelerate the HLW tank closure schedule. Furthermore, the CAB will continue to monitor the progression of the Salt Waste Processing Facility (SWPF) construction.

2. P-Area proposed plan/in-situ decommissioning of P-Reactor

- The primary sources of radioactive contamination in the P-Area are fission products and tritium, both of which are bi-products of the P-Reactor. Furthermore, a trace amount of tritium contaminated moderator liquid remains inside the reactor along with radioactive and contaminated equipment.
- The P-Reactor is the first SRS area completion that will include a hardened facility. To the maximum extent possible, SRS will address this area as a consolidated unit in terms of data characterization and risk assessments.
- Three public meetings have been held to discuss the P-Area cleanup.

3. Plutonium disposition/3-Prong into 2-Prong

- The three-pronged approach to plutonium disposition included the MOX facility, H-Canyon, and vitrification. This approach has been streamlined into two-prongs with the elimination of vitrification as a method for plutonium disposition.
- The SRS CAB is concerned because MOX is not an EM project. Therefore, the CAB is not able to contribute advice and recommendations on this major component of the site's plutonium disposition efforts.
- Furthermore, H-Canyon is an aging facility. The CAB has developed a recommendation regarding its infrastructure, but remains concerned as to whether it will be able to handle the increased magnitude of plutonium disposition required by this two-pronged approach.

Accomplishment: Enhanced outreach and increased transparency

- The SRS CAB has excelled in its public outreach efforts and has become a significant public resource for the community, DOE, regulators, and EM subcontractors.
- The CAB has updated its brand and logo and is working to increase opportunities for public participation through the use of electronic meetings.
- The CAB has also revised its newsletter and expanded its electronic distribution.

#### Paducah Gaseous Diffusion Plant EM SSAB – Ms. Clayton

1. Increase communication and public education of waste disposal options
  - The Paducah EM SSAB has developed a number of recommendations regarding how DOE can effectively reach out to the stakeholders surrounding the Paducah site.
  - DOE accepted the board's recommendations and incorporated its ideas into the site's public outreach plan.
  - The board desires enhanced public participation in DOE's decision-making processes and is anxious to see how its advice is implemented, particularly with regard to the upcoming public meeting on Paducah's CERCLA disposal cell alternatives.
2. Development of a comprehensive on-site metals recycling program, including existing nickel ingots
  - There are tremendous metal assets at the Paducah site, and it is important to note that all that is called waste is not necessarily waste.
  - The board is very interested in a metals recycling program at Paducah, but understands that this practice is held up under a current Departmental moratorium that is under discussion.
  - A recycling program is a key piece of the board's end state vision for the Paducah site. The board has made a number of recommendations, specifically concerning nickel recycling and has helped to raise awareness for this practice.
  - The board will continue to work with DOE to evaluate alternative options for metals disposition and, ultimately, to implement a safe and efficient metals recycling program.
  - A recycling program has the potential to greatly reduce the volume of DOE's waste and thereby reduce CERCLA cell costs. This issue could have huge impacts on future actions throughout the EM complex.
3. C-400 resistance-heating project and proposed trichloroethylene (TCE) reduction in the groundwater plume
  - The board's goal is to reclaim the plume, remove the source contamination, and return the groundwater to drinking water standards.
  - The board is currently awaiting the implementation of electrical resistance-heating technology to treat the source of the TCE contamination at the C-400 building.
  - Degradation of the TCE plume through natural attenuation is also a key factor in determining future remediation strategies.
  - The board will continue to work closely with DOE to monitor the effectiveness of these groundwater technologies and hopes to develop broadly applicable lessons learned.



Accomplishment: The Paducah CAB has generated a number of recommendations that raised a renewed complex-wide interest in the identification and disposition of potentially recyclable metals.

- The Paducah EM SSAB has issued four recommendations in 2008 that have driven major discussion within DOE regarding paths forward for the reuse of valuable metals resulting from D&D projects.
- The board continues to push for a proactive recycling program that will both reindustrialize the Paducah site and potentially save taxpayers countless dollars in disposal options. Recycling also has the potential to generate revenue for the U.S. Treasury through the reclamation of these valuable metals.

#### Portsmouth Gaseous Diffusion Plant EM SSAB – Mr. Francis and Mr. Snyder

Accomplishment: The EM SSAB for the Portsmouth Gaseous Diffusion Plant was established in July 2008 to provide recommendations on the DOE's EM program in Piketon, Ohio.

- The Portsmouth EM SSAB has 20 members from the surrounding communities and held its first public meeting in August 2008.
- The board will likely address issues pertaining to groundwater, D&D, and public participation.

Mr. Rispoli thanked the Chairs for their presentations and noted that the Round Robin session is very helpful for EM leadership because it relays the Boards' significant issues. He also commented that, with regard to the recurring funding concerns, EM will likely operate under a Continuing Resolution (CR) in the beginning of FY 2009 that will fund the program at the current FY 2008 levels. Furthermore, even though the FY 2009 budget request is lower, all of the program's schedules have been made public and are based upon the best available funding profiles and projections. Mr. Rispoli encouraged the boards to review those plans site-by-site and provide feedback regarding how the program has locally prioritized its work.

#### **Transition and Election Issues – Martin Schneider, Weapons Complex Monitor**

Mr. Martin Schneider began his presentation by suggesting that EM take stock of where it has been, where it is currently, and where the cleanup program should go in the next administration regardless of which candidate is elected. He recalled that the two terms of President Bush have been a rollercoaster ride for EM, specifically noting that shortly after the President was elected, the cleanup program went through a massive overhaul under Assistant Secretary Jesse Roberson and took on the theme of accelerated cleanup. More money was poured into the cleanup program in order to save more down the road, and this approach offered a number of clear success stories for DOE. With the support of Congress, EM was able to obtain record-high budget requests and when coupled with sustained and increased focus, the program cleaned up many sites years sooner than a lot of people thought possible.

Mr. Schneider pointed out several successes, including the closure of Rocky Flats and Fernald and the smaller Columbus and Ashtabula sites. He noted that Mound will be completed in a few months. These successes came at a cost, he said, specifically, attempts toward working the program out of business led to the human capital reduction that EM has faced in recent years. He

cited the recent National Academy of Public Administration (NAPA) report and noted that from 2001 to 2007 EM staffing levels dropped from 2,500 to less than 1,400, which reflected a loss of experience in key areas such as project management, acquisition, contract administration, quality assurance, and safety, among others. In a review released last year, NAPA placed the blame for the staff shortage largely on the previous going-out-of-business mindset.

EM also appeared to suffer from a lack of long-term planning. While working to go out of business, EM made an effort to fence off what work would be done by the cleanup program; future efforts were pushed to an Office of Future Liabilities. As a result, he said, DOE left out significant pieces of work that are just now being added to the EM baseline, for example, the Portsmouth Gaseous Diffusion Plant decommissioning.

In 2005 Assistant Secretary Rispoli was appointed and will most likely be remembered for working to rebuild the program after the previous going-out-of-business era. One of EM's major achievements under Assistant Secretary Rispoli's tenure was an effort to validate the cost and schedule baseline of every project in the program's portfolio. DOE now says it has a true handle on the scope, cost, and duration of the cleanup program and its various projects, which will serve the agency well in the next administration as EM sells its mission to Congress and the new political appointees. Assistant Secretary Rispoli committed to a number of efforts to rebuild the cleanup program as it headed into the long-term, including a renewed focus on project management, contract management, and acquisition planning. Furthermore, there have been new efforts to recruit and rebuild EM staff to address the human capital issues, and new emphasis has been brought to bear on EM's own research and development for new technologies to aid cleanup and to help the Department get the biggest bang for the buck.

Mr. Schneider pointed out that while Assistant Secretary Rispoli has been praised for recognizing the long-term focus of the cleanup program and for taking steps to rebuild its capabilities, many have said that there has been too much emphasis on process and less on results. Due to the newly validated baselines, the cost and scope of the program has significantly increased, leading to questions and concerns from stakeholders, as well as some sacrifice of trust. In addition, a number of factors, some of which have been outside of EM's control, have increased the cost of completing several major construction projects, such as the DUF6 conversion plans and the SWPF at Savannah River.

The days of major completions may be over for the foreseeable future, because EM has lacked that signature success that will give it momentum going into the long-term. Mr. Schneider also pointed out that there appears to be lukewarm support on Capitol Hill, mostly due to lawmakers protecting the interests of sites in their own states and because no one is really showing interest in the program from a complex-wide perspective. The cleanup program is no longer one of DOE's top priorities and, while the overall budget of EM has remained flat over the Bush administration, it continues to shrink each year, although the lifecycle costs continue to go up.

The focus on project management has given EM the information it needs to go forward. Looking ahead into the next administration, Mr. Schneider identified five goals that he thinks EM needs to achieve in order to return the program to prominence within the Department and in the eyes of those on Capital Hill.

### 1. EM needs to become part of the solution.

It is no secret that balancing energy needs with climate change will be one of the key challenges of the next President and the nation. The new focus on renewable energy could be an opportunity for EM if the program can imagine a cleanup effort that is not just about remediating sites to get the liability off the federal books and reducing risks. What if DOE also sold the cleanup program as a way to prepare large chunks of federal land for renewable energy uses?

Finding these types of uses – wind farms, solar panels, or even a commercial nuclear plant – on what was once contaminated land at a cleanup site could really help EM regain a bit of the prominence that it has lost in recent years. If the next administration and Capitol Hill can begin to look at EM not simply as a mop-up program that drains resources away from the real mission of the Department, but rather as part of the solution helping the country to move on to the next generation of energy production, the program will begin to see budgets at a level where significant cleanup progress can be made.

### 2. EM needs a budget on the order of \$6.5 billion a year.

The most recent funding request from the administration was about \$5.6 billion and led to widespread criticism from many on Capitol Hill for being too low to meet even legal cleanup commitments to regulators in Washington, New Mexico, and elsewhere. Mr. Schneider cited a presentation by Representative Zach Wamp earlier in the year, in which Representative Wamp, a member of the Energy and Water Appropriations Subcommittee, expressed not wanting to see cleanup efforts decelerated. Nonetheless, Mr. Schneider feels that the program is headed in this direction because of the priorities in the budget requests, specifically the FY 2009 request, which was the lowest sought for the cleanup program in 15 years.

According to DOE, each year, roughly \$3 billion of the EM budget requests go to “hotel” costs, such as security, maintenance, surveillance, and overhead. Under the FY 2009 budget request, those costs result in having less than one-half of EM’s funding directed toward actual cleanup.

A consistent funding level of \$6.5 billion for the program would be sufficient and would provide enough money for EM to meet its regulatory commitments with a few hundred million left over to funnel towards high priority projects, he opined. Consistency of funding would also let EM know what to expect each year and would give EM greater flexibility across the complex, as when it accelerated cleanup at Rocky Flats. Having the White House and Congress support that level of funding will require EM to show that it can spend the money wisely.

### 3. EM needs to show some near-term gains.

EM knows more now about what needs to be done and how much it will cost than at any time in the history of the program, but that has come at a cost. The baseline for each EM project has been scrutinized, completion dates have been extended years beyond the previous schedules, and lifecycle costs have increased by billions of dollars. According to the FY 2009 budget request, the cleanup program is now expected to finish its work as late as 2062 at a cost that could exceed \$300 billion, and without another site closure for decades.

Those on Capitol Hill, who, he said, trade in image and “what have you done for me lately,” present a real problem for EM because they need some near-term successes to hang their hat on if they are going to champion EM come budget time. Mr. Schneider suggested that there are several projects around the EM complex that, if packaged and funded in the right way, could provide this sort of near-term success and give the program some much needed momentum. He listed three examples of projects that could essentially take off if funded properly:

- Oak Ridge
  - Given the right funding priority, legacy cleanup at Oak Ridge could be finished before the next decade is out, including the IFDP project to demolish facilities, the lab central campus, and the Y-12 complex.
- The Hanford River corridor and cleaning up the Cold War sites along the Columbia River as well as pulling back the remaining work at Hanford to the central plateau.
  - This work could be completed by 2015, but would require some pretty significant funding commitments.
- D&D of the Portsmouth Gaseous Diffusion Plant.
  - This work could also be completed fairly quickly if funding is provided.

He stated that as it currently stands, all of this work is set to receive minimal funding and take decades to complete.

#### 4. EM needs to show Congress and its stakeholders that it is worth an annual \$6.5 billion investment.

It is important to demonstrate that EM can spend money wisely, bring construction projects in on time and at the projected cost, and award contracts in a timely fashion; this means making sure that the internal project management “fixes” that Assistant Secretary Rispoli has implemented bear fruit in ways that matter to Congress and the regulators.

From a Capitol Hill perspective, the cost and schedule of high-profile projects like the WTP, the DUF6 conversion plants, and the SWPF are still being revised upwards every year. From a regulator’s perspective, milestones are still being missed and not enough funding is being requested. Now that EM has rigorous project management measures in place, it needs to show results to the people holding the purse strings, who have become increasingly skeptical of the management of the program.

EM has made a clear effort to scrub its entire portfolio of projects and to ensure that the program has realistic costs and schedule ranges for every one of them. However, it is also very clear that EM has a ways to go to demonstrate to Congress and its stakeholders that cleanup is a worthwhile investment. EM is taking steps in the right direction, but it is important to stick to its validated baselines, meaning significant lifecycle costs and schedule increases that accompany the FY 2009 budget request cannot become an annual practice.

#### 5. EM needs to become a better customer.

There is increasingly more competition for the kind of people EM needs in order to succeed. With the cleanup in the UK and the global commercial nuclear market picking up steam, that competition will only get stronger. Key personnel are the single greatest indicator of a project’s success. Companies in the nuclear sector are very willing to take the people who are doing a

good job in the U.S. and put them in a better situation where they feel they can make more money and maybe have a little more predictability.

Mr. Schneider then asked rhetorically what EM can do about losing key personnel. He proposed that EM become more predictable and noted that EM has an internal acquisition schedule with projected RFP release dates, award dates, etc., that has never been publicly released. Mr. Schneider suggested that publishing a schedule for upcoming procurement schedule and sticking to that schedule would go a long way toward making contractors look at the EM market as worthwhile. The program has made some progress in this area by awarding three high-profile contracts about a year after bids were submitted.

Mr. Schneider concluded his presentation by stating that more work needs to be done to give contractors notice regarding what is coming down the pipeline, allowing them to set aside the right people for EM work.

### Discussion

Mr. Campbell asked if Mr. Schneider could give his scenario for what happens with future administrations - Democrat, Republican or Independent.

Mr. Schneider replied that there have been a number of scenarios thrown around. In one of them, a candidate like Obama may reach back into the University of Chicago, Argonne National Laboratory establishment for some appointees at the Department. It would be interesting to see leadership come from one of the national labs for many of DOE's programs.

He also responded that energy production is evident in both candidates' agendas and suggested the possibility of a utility executive appointment in a McCain administration. Mr. Schneider predicted that the Secretary of Energy will likely be picked a little earlier than in years past and that it will be probably be someone with a background and a passion for energy.

Ms. Antonucci asked if Mr. Schneider had any comments on Global Nuclear Energy Partnership (GNEP).

Mr. Schneider responded that the idea of reprocessing and recycling will move forward, but Capitol Hill is so poisoned to how GNEP was rolled out that the initiative is a non-starter. Congress is not opposed to reprocessing and/or closing the fuel cycle.

Ms. Antonucci stated that she is concerned about this issue because MOX plays an important role in the strategy for plutonium disposition. She then asked if there will be any change in the way MOX is viewed.

Mr. Schneider responded that there is opportunity in that area because MOX for plutonium disposition is not the same proposal as MOX for GNEP.

Mr. Maynard asked if Mr. Schneider saw a role for the EM SSAB in supporting EM and increasing its funding.

Mr. Schneider responded that people on Capitol Hill would much rather hear from constituents than from DOE. He suggested that people on Capitol Hill are often disconnected from their local communities and hear the information through third parties, such as the DOE Congressional Affairs Office. Congressional staff is generally shielded from the substantive people at DOE-HQ.

Ms. Cimon commented that she wished Hanford had been built smaller, but because of its size, cleanup is going to be very incremental and small. It is difficult to tie cleanup to new energy needs, especially at the Hanford site, where DOE is still dealing with truck loads of soil and exhuming spent fuel, other hazardous material and what is basically garbage.

Ms. Nielson noted that the EM SSAB is the largest federal advisory board in the country, consisting of 200 members in 10 states, with 10 Governors, 20 Senators, and a many Congressmen. Even though the Board cannot lobby or write their representatives on behalf of the Department, members can make recommendations to DOE with copies to other interested parties. She stated that the local boards may never agree on who gets what waste, but if they did, it would be a powerful statement.

Ms. Antonucci asked Mr. Schneider to comment on the issue of Yucca Mountain.

Mr. Schneider stated that it is tough to toil away at the centerpiece of a cleanup program, knowing that EM may end up with stacks of glass that have to sit at the sites for many more years. He commented that although EM has a disposition path for plutonium, it does not meet the proposed waste acceptance criteria for Yucca Mountain and that would have to be addressed. This is another example of DOE's stovepipes.

Ms. Cimon commented on the nuclear renaissance and asked what impact that has on the need for a repository.

Mr. Schneider responded that the nuclear sector has said that it does not need to see Yucca Mountain before pursuing new nuclear facilities. The industry contends that on-site storage is safe and can be used until a permanent solution becomes available. The only issue pushing towards Yucca Mountain right now is that the federal government has billions of dollars in liability under its standard contract with utilities for not opening Yucca Mountain and taking that spent nuclear fuel in 1998. Mr. Schneider pointed out that the federal government has already paid out billions of dollars for what utilities have had to do with waste thus far and if Yucca Mountain ever closes for good, it will have billions more to deal with. He suggested that, at some point, the federal government may need to take title of spent fuel, even if it is at the reactor site or in a centralized storage area.

Mr. Campbell commented that there is a deep geologic repository for TRU waste in New Mexico that may have the capacity and design for HLW. He wondered if the EM SSAB, which has a mutual need for a HLW disposition strategy, might consider a recommendation to DOE to consider expanding the acceptance scope for WIPP.

Mr. Schneider noted that salt formations like the one surrounding WIPP, are technically wonderful for higher levels of waste. However, politically the proposal to expand WIPP is a nonstarter.

**Management and Strategic Planning Panel – James Fiore, Director, Office of Management Analysis, and Paul Strider, Office of Strategic Planning**

Mr. James Fiore stated that he was going to speak about the EM program's current thoughts regarding discussions with the incoming administration, regardless of political party. He began his presentation by talking about the transition process. EM is working from the assumption that the people coming in do not possess an extensive familiarity with the background and history of the program. Therefore, EM leadership is focused on compiling good materials that describe the mission of cleaning up the legacy of the Cold War. Mr. Fiore emphasized that it is important to realize that EM is linked to the communities who helped win the Cold War; there is a commitment to pay those communities back for any debt that the Government may have created in that effort.

Another important element to stress during the transition planning is the nature of the program and taking highly complex, technical information and translating it into more accessible terms. Mr. Fiore referenced the fact that there are materials available on many of the program's websites right now, but that EM is still trying to refine some of those resources. The evolution of the program will be included in these materials to help readers put its successes and criticisms into context.

Mr. Fiore then addressed the concern that people are hearing different numbers regarding the amount of money the program needs in order to survive. Specifically, he mentioned a dispute between the amounts of \$5 and \$7.5 billion. It is important to look at the assumptions underlying calculations that result in those numbers. Fernald and Rocky Flats were huge success stories, driven largely by the program's performance incentives for contractors. Furthermore, much of the success can be attributed to stable funding at those sites.

Mr. Fiore noted that while the previously mentioned sites were successful, it is still necessary to have the rigor and the planning that has been put in place in the last three or four years to really know where EM is headed with costs and schedules for the future. He stressed that the program wants to acknowledge and confront the criticisms that have come from Congress and noted that improvements have been made to address these criticisms. EM will also address some of the conclusions of the NAPA report and the status of the Academy's recommendations with the new administration. Mr. Fiore believes that EM is on a solid path to becoming a high-performing organization. The test will be to show that these improvements are making a real difference over time.

Mr. Fiore said that it is important for the new administration to appreciate what EM has achieved to date and what it is poised to accomplish in the future. The next step in the transition planning process will link some of EM's challenges and opportunities. For example, the current budget situation presents a challenge; EM plans to articulate how the budget has progressed to its current situation along with any resulting sensitivities and the impacts.

When the budget drops below \$6 billion, very limited progress is made because so much of the money is tied up in landlord costs that are associated with maintaining the facilities safely. If the budget is increased above \$6 billion, pretty significant progress is achievable. Clearly articulating this sensitivity and how EM can better perform at certain levels of funding is important. Lower funding levels have the potential to result in missed milestones, litigation, and bad press. A key part of EM's message to the next administration is to communicate the immense importance of the program's overall budget.

EM also plans to discuss the need to demonstrate significant near-term progress in the next administration. It will also address the probability that EM will be asked to accept unfunded liabilities into its work scope. The prospect of adding more facilities and costs to the program's scope is a daunting challenge, especially when EM struggles to meet its existing milestones and schedules. The outcome of this initiative will have impacts throughout the complex and the Department.

Framing EM as a resource to help meet the country's energy needs in the long-term may also benefit the program during its transition discussions. EM has a highly skilled workforce that can deal with nuclear materials. The program also has extensive environmental data that could be useful for transitioning DOE sites into entities that can help contribute to the energy goals of both the Department and the nation.

### Discussion

Mr. Campbell asked about opportunities for additional funding and how the EM SSAB can be more proactive in supporting those efforts.

Mr. Fiore responded that it would be helpful for the EM SSAB to clearly articulate how it believes that program is managing its funding. The more positive that message, the better off the program will be in the long run. This helps reinforce EM's credibility with Capitol Hill who will likely want to hear from the program's advisory groups.

Ms. Antonucci asked how EM plans to communicate EM's successes to the new administration in a way that is nonpartisan and if EM-5 will be used in such communications. She also inquired as to whether there was a way to disseminate information that demonstrates more of EM's value. Is there a plan for how the program might have a little more "whiz-bang"?

Mr. Fiore responded by saying that one of the most significant undertakings in transition planning is articulating what EM's message is and identifying how it will be communicated. This is EM-5's responsibility; Mr. Bobeck and his staff are providing feedback on transition materials and assisting in their development.

In February and March of 2008, EM reviewed a number of its Congressional briefings to assess their effectiveness. This prompted the reworking of a lot of the program's communications material. EM is also using its new employees as informal focus groups to improve upon current communications tools.



Ms. Antonucci added that changing something seemingly small like the layout of a website can have dramatic impacts on how the program's message is received.

Mr. Fiore agreed with Ms. Antonucci's comment and added that EM-5 is also reviewing EM's websites to review the information and messages that they convey. The program hopes to achieve more consistency across its websites in the future.

Ms. Nielson commented that a new administration will also need to determine what its legacy can be and suggested that the local boards think about where the program should go and what it should accomplish at their sites in the next four years. The Chairs may want to address this issue in a product during their spring meeting.

#### Potential Unfunded Liabilities for the Environmental Management Program

Mr. Strider explained that the Office of Strategic Planning and Analysis is tasked with creating future scenarios that EM may face in the future. What might the program need to address in the coming years that is not integrated into its current scope?

As previously discussed, in the early 2000s, DOE took the position that it would not accept greater scope from other Departmental programs and would essentially try to work itself out of business, before determining what the follow-on to EM would be. However, over the last few years, Congress, DOE, and EM, recognized that the program possesses unparalleled D&D and special nuclear materials handling, storage, and disposition capabilities. Consequently, DOE decided the EM would accept scope from other Departmental programs and set out to determine which liabilities should be eligible for transfer.

NNSA, SC, and NE have nominated facilities and materials that will likely be transferred into EM prior to 2014. EM also expects a number of facilities to be transferred from the IFDP at Oak Ridge that will allow NNSA and SC to streamline their operations and transform Oak Ridge into one of the preeminent sites in the country with regard to future DOE programmatic missions.

The facilities transfers will take place under DOE Order 430.1 A, which pertains to real estate within the Department. This is a well-established order that includes criteria for facility acceptance.

After receiving the transfer nominations from DOE, EM sent teams to evaluate each facility and make a determination as to whether efforts at those facilities would align with EM's mission. The final list of nominations was provided to Congress and included approximately 340 distinct facilities and/or groups of materials and waste. Oak Ridge will receive the majority of transferred liabilities identified thus far. EM has already completed Critical Decision 0 (CD-0) for this process and determined that there is a clear mission need to deal with the surplus facilities and materials. EM will receive transfers under the Oak Ridge IFDP in five-year increments.

Mr. Strider clarified that the additional work scope and surplus facilities EM expects to receive from these transfers are completely unfunded. Once the program completes its walk-through evaluations and negotiates transfer with the various Departmental units, it will need to factor the

new scope into its existing priorities and schedules. Of the 340 identified facilities to date, 153 will become excess by 2014. EM has been able to develop cost estimates for this work that range between \$3.7 and \$9.2 billion. Therefore, EM will either need additional funding to cover these liabilities, or it will have to reprioritize the schedules and profiles that currently exist.

Mr. Strider reported that the next steps for EM are to follow-up with Congress on the list of facilities that could add to the scope and to finish negotiations with the other Departmental units. NNSA, SC, and NE, will also develop their own CD-0 packages, outlining their needs to transfer surplus facilities into EM.

Ms. Leckband asked what compelled DOE to initiate this process and whether EM was bound to accept this additional scope even though its current funding does not adequately address the existing, baselined cleanup.

Mr. Strider explained that EM is subject to the direction of its higher management to incorporate the additional scope and reprioritize its work if appropriate. The facilities and materials in question are all DOE property.

Mr. John Bolliger commented that even though the SSAB is an EM board, it may be appropriate for the Board to interact with the other Departmental missions at their sites in the event that those facilities and programs transfer scope into EM's purview. Given these possibilities, he said, it does not seem right for the local boards to operate in an EM vacuum.

Mr. Rispoli responded that he solicited each local board's input regarding this issue during his presentation. The earliest that EM could begin addressing the surplus facilities without any change in existing prioritization and/or funding is 2017. Should the program need to revisit that prioritization and scheduling, it would certainly solicit each local board's input throughout the process.

Mr. Rispoli explained that the liabilities Mr. Strider discussed have not been approved for transfer as of yet. However, if/when they are, EM's model would suggest that the other programs retain ownership of those facilities until EM is able to begin work. He also explained that the near-term issue for EM is to evaluate the new liabilities from a risk perspective and determine whether or not they require action before 2017.

Mr. Phelps emphasized that building trust with the communities is critical to EM's success. DOE needs to proceed very cautiously in presenting the issue of unfunded liabilities to its stakeholders.

Mr. Rispoli noted that although the additional contaminated facilities were not previously included under EM's umbrella, the need for their cleanup has always existed. The important thing is that EM has a process to evaluate those liabilities and reprioritize projects if needed. Furthermore, EM has the capability to perform the work safely and efficiently. The challenge will be to secure adequate funding and sequence these projects appropriately.

Ms. Antonucci asked how the issue of EM's aging workforce will impact the program's ability to

effectively address the new liabilities. Is programmatic fatigue an issue?

Mr. Strider responded that EM was chosen to accept surplus facilities in part because of the expertise that it possesses.

Mr. Lundy said that although EM possesses the expertise, it does not have adequate funding. He asked if the program has considered marketing its services to additional customers from outside of DOE.

Mr. Rispoli explained that while EM is open to other Departmental needs, it has not engaged in the type of marketing that Mr. Lundy suggested.

Mr. Campbell asked Mr. Rispoli to address the status of LANL's certified baseline.

Mr. Rispoli explained that EM's current objective is to determine how the program can ramp up LANL's funding profile so that it meets the site's certified baseline and the provisions laid out in the Department's regulatory agreement with the State of New Mexico. LANL is the only site where there is still a disconnect between its current funding profile and the certified baseline.

Mr. Bonner stated that the ORSSAB endorsed the concept of the IFDP with the caveat that the board has not officially reviewed the CD-0 and believes that the EM program's current scope should take priority. The ORSSAB has requested access to the IFDP CD-0 in order to provide informed feedback to DOE.

Ms. Nielson indicated that her office will look into whether or not that document can be made available to the public.

Mr. Fiore clarified an earlier comment regarding the concept of "near-term progress." This concept can be applied to a variety of elements such as facility cleanup and footprint reduction. The EM SSAB's input regarding how EM could best achieve those types of successes would benefit the program. A mechanism that can help EM demonstrate how it has decreased contamination will help send a powerful message.

Ms. Bobby Ann Lee commented that she is a strong advocate for improving DOE's methods of communicating with the public. It is important, especially with regard to the unfunded liabilities issue, that DOE present the information appropriately and set a positive tone from the start. For example, she suggested that Mr. Strider's presentation should have started with an acknowledgement that Congress has recognized EM's management and cleanup expertise, and that is why it has chosen the program as the designated lead for nuclear cleanup liabilities.

Ms. Lee also suggested that the EM SSAB Chairs could fill out surveys on each presentation in order to provide feedback to EM and help the program improve its communication.

Ms. Nielson noted Ms. Lee's suggestion and commented that the Chairs should incorporate an evaluation of the DOE presentations into their spring meeting. This will help EM improve its communications.

Ms. Cimon addressed Mr. Fiore's "near-term success" comment and cautioned that shrinking a site's footprint does not necessarily mean that EM is reducing risk. While D&D may result in more visible progress, it may also detract from higher priority remediation efforts.

Mr. Fiore clarified that EM's overarching driver continues to be risk reduction; that will not be sacrificed in order to demonstrate near-term success.

Mr. Wegst commented that there are many different forms of risk besides those to safety and health. There is also the risk of losing public confidence and Congressional support; it may be helpful to factor this in to the program's priorities as well.

### **EM SSAB Roundtable Discussion**

Ms. Nielson indicated that the Roundtable Discussion should focus on the areas of membership recruitment strategies, public outreach, annual reports, and member surveys.

### Oak Ridge Site-Specific Advisory Board

Mr. Lundy reported that the ORSSAB and the Oak Ridge site have a good working relationship.

The ORSSAB publishes an annual report that is broadly distributed to the public and other interested audiences.

Although it is DOE's responsibility to appoint new members to the EM SSAB, the ORSSAB assists in membership recruitment by reaching out to stakeholders through newspaper advertisements, local publicity, and mass mailings. Applications are evaluated and prioritized by the local community college before they are handed over to DOE.

The ORSSAB issues an annual stakeholder survey in order to gather public opinions on important EM issues and perceptions about the EM SSAB. The surveys are distributed to 500 people through a variety of locations; the response rate is approximately 14 percent.

Ms. Nielson added that the ORSSAB, like the other local boards, comprises members who represent their communities, or in some cases, specific entities or groups. She clarified that due to the nature of their employment, federal employees cannot be appointed as representatives to the EM SSAB.

### Nevada Test Site Community Advisory Board

Mr. Wegst reported that the NTS CAB has not produced an annual report to the community since 2004 because of limited public interest. The location of NTS is considerably remote with respect to its neighboring counties.

In terms of recruitment, the NTS CAB aims to keep its membership between 15 and 20 members and conducts recruitment efforts, such as local media advertisements, every two years. The CAB successfully recruited eight new members in FY 2008. However, the CAB is persistently challenged by its inability to recruit representation from the local Native American populations

and nearby Clarke County.

The NTS CAB has also attempted to recruit more members from the surrounding rural communities and has attempted to hold public meetings in those areas. Unfortunately, turnout and interest has been very low and the CAB may be forced to discontinue this practice.

Lastly, the NTS CAB performs internal membership surveys to solicit feedback on how well the CAB operates.

#### Hanford Advisory Board

Ms. Leckband reported that the HAB's annual report is a very useful teaching tool for both the board and public. The HAB makes this report available along with other products during its public meetings. Ms. Leckband explained that the board holds six meetings a year.

The HAB's membership differs from the other local boards in that the board is made up of representatives from designated interest groups. These interests include local government, the Hanford workforce, environmental organizations, and local business entities. While the membership of these are not term-limited, the individuals that represent the group often change about every couple of years.

With regard to membership surveys, Ms. Leckband noted that the HAB performs a self-evaluation every year that is discussed during its annual leadership retreat.

#### Northern New Mexico Citizens Advisory Board

Mr. Phelps reported that the NNM CAB issues an annual report that documents the board's recommendations and activities. It is written in plain language and used primarily as an informational tool. Mr. Phelps added that the NNM CAB recently formed an ad hoc committee to evaluate the board's external communications and has enlisted the help of a local high school communications class to review products like the board's annual report for simplicity and accessibility.

The NNM CAB aspires to have approximately 27 members; however, its numbers have dropped to below 20 in recent years. Mr. Phelps noted that similar to the NTS CAB, recruiting and retaining Native American representation has been difficult. The NNM CAB is currently reviewing whether or not the current size of the board is appropriate.

The NNM CAB collaborated with other local boards to develop an internal membership survey. The surveys have revealed a couple of issues that are currently being addressed through corrective actions.

Ms. Nielson commended the NNM CAB for using its survey as a learning tool to improve the board's operation and encouraged all of the boards to submit their surveys to DOE-HQ for distribution to the full EM SSAB.

#### INL Site EM Citizens Advisory Board

Mr. Bolliger reported that the INL CAB had previously issued annual reports; however, the last available document appears to be two years old. The INL CAB performs an assessment of its activity during its annual retreat as it begins to develop a plan and set the stage for the next year.

The INL CAB recently transitioned a large portion of its membership and is now more balanced in its representation, specifically with regard to gender, ethnicity, and age. One challenge that members confronted in the board's recent recruitment effort was the concept of who INL's stakeholders actually are and who needs to be represented. The local DOE site office determined that the INL CAB should restrict its definition of stakeholder to the local communities.

Lastly, the INL CAB has not generated any formal external survey.

Ms. Nielson commented that the concept of who needs to be represented and what the range of interest is varies by site. The local boards need to work with their site management to determine how far that range extends.

#### Paducah Gaseous Diffusion Plant EM SSAB

Ms. Lee reported that the Paducah EM SSAB is still recovering from a major loss of members in 2004. There are currently 10 members serving on the board, with a ceiling of approximately 18. As chair of the Community Outreach Committee, Ms. Lee explored ways to expand the board's appeal and provide for a broad range of stakeholder interests. Since that time, both the board's operation and its interaction with DOE has continued to improve. Ms. Lee has also proposed that the board begin looking at scenarios and planning for the future use of the Paducah site. This issue may draw more attention and community involvement and will likely be discussed during a series of public meetings.

Similar to the other local boards, the Paducah EM SSAB produces an annual report that is also used as a recruitment tool. The board also issues an internal survey to improve its operation.

#### Savannah River Site's Citizen's Advisory Board

Ms. Antonucci reported that the SRS CAB normally issues a report every two years, but has discontinued the practice until it is able to reevaluate its intended audience and utility, beyond that of a communications tool. In lieu of the annual report, the SRS CAB has employed the use of recommendation status reports to synopsise its reports and monitor the implementation of its advice. Additionally, the SRS CAB issues a biannual publication called the *Board Beat* and develops an annual work plan each January.

The SRS CAB aims for broad representation in its recruitment strategies, from communities located upstream and downstream from SRS. In addition to advertising on the board's website and in the local media, each member is responsible for passing out two applications to their friends and colleagues. Ms. Antonucci noted that recruitment begins with inviting the public to the board's meetings; the SRS CAB has a distribution list of over 2,000 people. Overall, the SRS CAB's recruitment is very successful.

Membership surveys are issued during the board's annual retreat and public surveys are available during the board's regular meetings.

### Portsmouth Gaseous Diffusion Plant EM SSAB

Mr. Snyder thanked the Chairs for their advice and encouragement. As the Portsmouth EM SSAB continues to take shape, it will likely develop similar tools and resources such as annual reports, internal/external surveys, and membership retreats.

The Portsmouth EM SSAB's membership represents approximately five counties located in Ohio and Kentucky. At this time, there is no full-time board administrator, but interim support is provided by the Paducah EM SSAB's staff.

Mr. Francis asked the other Chairs a number of questions pertaining to their board structure and operation. Specifically, he inquired about the use of meeting facilitators from outside the group, voting procedures, and time limits for public comment periods.

The majority of the Chairs responded that they do use facilitators who are contracted by DOE, operate according to Roberts Rules of Order, and generally adhere to public comment periods that range from five to 10 minutes.

The roundtable session concluded with a final remark from Mr. Rispoli. He closed by praising the EM SSAB Chairs for their admirable public service to their communities, DOE, and the nation; volunteering to serve on the EM SSAB, he said, is a noble endeavor. Mr. Rispoli expressed his gratitude on behalf of the EM leadership and DOE.

### **Public Comment Period**

Ms. Nielson called for comments from the public, whereupon there was no response.

### **EM SSAB Product Development and Board Business**

The EM SSAB Chairs engaged in an iterative and interactive process to develop and agree upon a letter thanking Mr. Rispoli for his contribution to the EM program, and specifically for:

- Implementing high standards for project management for EM-funded projects across the DOE complex, including encouraging DOE staff to obtain higher level project management skill sets;
- Requiring Certified or Validated Baselines to be established and in place for all legacy waste cleanup projects and sharing them with stakeholders; and
- Instituting a program of hiring and training a new generation of DOE staff to ensure there is personnel depth at DOE to take the handoff as the current generation retires and cleanup continues.

These specific contributions will also be brought to DOE's November 12-13, 2008, Combined Intergovernmental Groups meeting in Snowbird, Utah, for discussion. DOE-HQ will ensure that the final thank you letter is included in EM's transition documents.

The Chairs decided to reserve the development of a second letter to the new Assistant Secretary for the spring meeting which the SRS CAB will host. That product will address those

programmatic elements and successes that the EM SSAB would like to see continued and the importance of the Board and its relationship with EM leadership. The HAB will take the lead on developing this product and the local boards are encouraged to discuss suggestions and refinements prior to the March Chairs meeting.

Ms. Cimon also suggested that the Chairs consider drafting consensus advice on adequate funding for the EM program during the spring meeting; as previously discussed, such advice could make a powerful statement to the new administration.

Ms. Nielson reminded the Chairs that the EM SSAB will host a panel at the 2009 Waste Management Symposium. The symposium takes place during the first week of March. Information can be found at [www.wmsym.org](http://www.wmsym.org).

The next EM SSAB Chairs meeting is scheduled for the week of March 16, 2009 near the Savannah River Site. Ms. Leckband, Ms. Cimon, Mr. Campbell, and Mr. Lundy volunteered to serve on the steering committee for the spring meeting.

The next EM SSAB Chairs call is scheduled for November 20, 2008, at 3:00 p.m. EST.

Ms. Nielson and Mr. Frost thanked all of the participants for a successful meeting and adjourned the proceedings at 5:27 p.m. EST.